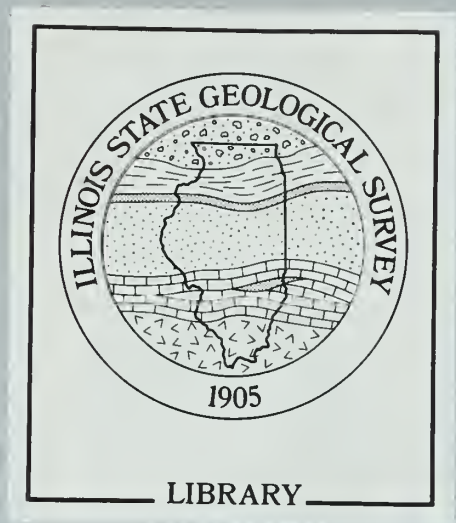


Geol Survey

557
IL6of
1982-1

ILLINOIS GEOLOGICAL
SURVEY LIBRARY



LIBRARY

ILLINOIS STATE GEOLOGICAL SURVEY



3 3051 00007 0254

Bibliography and Index of Illinois Geology 1982

Selected from Publications Indexed in GeoRef in 1982

Open File Series 1982-1

Illinois State Geological Survey
615 East Peabody Drive
Champaign, IL 61820

**ILLINOIS GEOLOGICAL
SURVEY LIBRARY**

GeoRef Information System

American Geological Institute
4220 King Street
Alexandria, VA 22302

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

SERIALS LIST

- A. I. P. Conference Proceedings. New York, NY: American Institute of Physics.
- AAPG Bulletin. [Tulsa, OK: American Association of Petroleum Geologists].
- ANL/ES - Argonne National Laboratory. Argonne, IL: Argonne National Laboratory.
- Annual Meeting - Association of Engineering Geologists. [s.l.]: Association of Engineering Geologists.
- Annual Remote Sensing of Earth Resources Conference. [Tullahoma, TN: The University of Tennessee, Space Institute].
- Arch. Sci. (Soc. Phys. Hist. Nat. Geneve). Archives des Sciences (Societe de Physique et d'Histoire Naturelle de Geneve). Geneva.
- ASTM Special Technical Publication = American Society for Testing and Materials Special Technical Publication. Philadelphia, PA: American Society for Testing and Materials, 1911-.
- Bulletin of the Southern California Paleontological Society. Long Beach, CA: Southern California Paleontological Society.
- Circular - Illinois State Geological Survey. Urbana, IL: Illinois State Geological Survey, 1906-.
- Circular - Illinois State Water Survey. Urbana, IL: Illinois State Water Survey, 1928-.
- Coal Age. New York, NY: McGraw-Hill Book Co., 1911-.
- Congres International - Association International de Geologie de l'Ingenieur = International Congress - International Association of Engineering Geology. [s. l.: s. n.].
- Congress of the International Union for Quaternary Research. [s. l.: International Union for Quaternary Research].
- Cooperative Groundwater Report. Illinois, State Water Survey. Urbana, IL: Illinois State Water Survey, 1959-.
- Document - Illinois Institute of Natural Resources. Chicago, IL: Institute of Natural Resources.
- Earth Science. Colorado Springs, CO: Richard M. Pearl.
- Earthquake Information Bulletin. Reston, VA: U. S. Geological Survey, 1973-.
- Economic Geology and the Bulletin of the Society of Economic Geologists. Lancaster, PA: Economic Geology Publishing Company.
- Eng. Geol. Engineering Geology. Elsevier Sci. Publ. Co., Amsterdam.
- Environmental Geology Notes. Urbana, IL: Illinois State Geological Survey, 1965-.
- Fieldiana: Geology. Chicago, IL: Field Museum of Natural History, 1945-.
- Financial Times. London: Financial Times Ltd., 1888-.
- Geologica et Palaeontologica. Marburg: Elwert, 1967-.
- Geological Society of America Bulletin. Boulder, CO: Geological Society of America, 1890-.
- Geological Survey Circular. Reston, VA: U. S. Geological Survey, 1950-.
- Geological Survey Professional Paper. Washington, DC: U.S. Government Printing Office, 1902-.
- Geological Survey Professional Paper (Washington). Washington, DC: U.S. Government Printing Office, 1902-.
- Geophysical Monograph. Washington, DC: American Geophysical Union, 1956-.
- Geophysical Research Letters. Washington, DC: American Geophysical Union, 1974-.
- Geoscience and Man. Baton Rouge, LA: Louisiana State University, School of Geoscience.
- Ground Water. Urbana, IL: National Water Well Association, Ground-Water Technology Division.

- Guide Leaflet - Illinois State Geological Survey. Champaign, IL: Illinois, Department of Energy and Natural Resources, State Geological Survey Division.
- I. A. E. A., Proc. Ser. International Atomic Energy Agency, Proceedings Series. Vienna.
- IIHR Report. Iowa City, IA: Iowa Institute of Hydraulic Research.
- Illinois Mineral Note. Urbana, IL: Illinois State Geological Survey Division, Illinois Institute of Natural Resources, 1972-.
- Illinois Petroleum. Urbana, IL: Illinois State Geological Survey, 1926-.
- Int. Assoc. Eng. Geol., Bull. International Association of Engineering Geology, Bulletin--Association Internationale de Geologie de l'Ingenieur, Bulletin. Paris.
- Int. Geol. Congr. Abstr.--Congr. Geol. Int., Resumes. International Geological Congress, Abstracts--Congres Geologique Internationale, Resumes.
- Int. Peat Congr., Proc. International Peat Congress, Proceedings.
- Iowa Geology. [Iowa City]: Iowa Geological Survey, 1979-.
- ISWS Miscellaneous Publication. Champaign, IL: Illinois Department of Energy and Natural Resources.
- Journal of Environmental Quality. Madison, WI: Published cooperatively by the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, 1972-.
- Journal of Paleontology. Tulsa, OK: Society of Economic Paleontologists and Mineralogists, 1927-.
- Journal of Sedimentary Petrology. Tulsa, OK: Society of Economic Paleontologists and Mineralogists, 1931-.
- Journal of Soil and Water Conservation. Ankeny, IA: Soil Conservation Society of America.
- Journal of the Geotechnical Engineering Division. New York, NY: American Society of Civil Engineers, Geotechnical Engineering Division, 1974-.
- Journal of the Hydraulics Division. New York, NY: American Society of Civil Engineers, Hydraulics Division, 1956-.
- Journal of the Institution of Engineers. India. Environmental Engineering Division. Calcutta: Institution of Engineers.
- Journal of the Water Resources Planning and Management Division. New York, NY: American Society of Civil Engineers, Water Resources Planning and Management Division, 1976-.
- Land Use Land Cover Maps, L-Ser. Land Use and Land Cover Maps, L-Series. U. S. Geological Survey, Reston, Virginia.
- Lapidary Journal. San Diego, CA: Lapidary Journal, Inc., 1947-.
- Marine Mining. New York, NY: Crane, Russak and Company, 1977-.
- Mining Engineering. Littleton, CO: Society of Mining Engineers of AIME, 1949-.
- Miscellaneous Series Publication - Botanical Society of America. [s. l.]: Botanical Society of America.
- Open-File Report (United States Geological Survey, 1978). Reston, VA: U. S. Geological Survey.
- Proceedings - Soil Science Society of America. Madison, WI: Soil Science Society of America, 1936-.
- Proceedings - Symposium on Rock Mechanics. New York, NY: American Institute of Mining, Metallurgical and Petroleum Engineers.
- Proceedings of the Annual Highway Geology Symposium. Atlanta, GA: Highway Geology Symposium.
- Proceedings of the Annual William T. Pecora Memorial Symposium on Remote Sensing. [s. l.: s. n.], 1975-.
- Proceedings of the Indiana Academy of Science. Indianapolis, IN: Indiana Academy of Science, 1891-.
- Quaternary Research (New York). New York, NY: Academic Press, 1970-.
- Radiocarbon. New Haven, CT: The American Journal of Science.
- Report - California Water Resources Center. Davis, CA: Office of the Director, California Water Resources Center, University of California, 1975-.
- Report of Investigation - Illinois State Water Survey. Urbana, IL: Illinois State Water Survey.
- Reports of Investigations - Illinois State Museum. Springfield, IL: Illinois State Museum, 1948-.
- Rock & Gem. Encino, CA: Behn-Miller Publishers, Inc., 1974-.

Rocks and Minerals. Washington, DC: Heldref Publications.

Soil Science: Baltimore, MD: The Williams & Wilkins Company, 1916-.

Soil Science Society of America Journal.
Madison, WI: Soil Science Society of America, 1976-.

Special Publication - Kentucky Geological Survey. Lexington, KY: Kentucky Geological Survey, 1953-.

Special Report - Water Resources Center, University of Illinois at Urbana-Champaign.
Urbana, IL: Water Resources Center, University of Illinois at Urbana-Champaign.

SPEJ. Society of Petroleum Engineers Journal.
Dallas, TX: Society of Petroleum Engineers, 1961-.

Systematics Association Special Volume. London - New York: Academic Press for the Systematics Association, 1968-.

Tectonics. Washington, DC: American Geophysical Union, 1982-.

Trace Substances in Environmental Health.
Columbia, MO: University of Missouri-Columbia, 1968-.

Transactions of the American Institute of Mining, Metallurgical, and Petroleum Engineers Incorporated. New York, NY: American Institute of Mining, Metallurgical, and Petroleum Engineers.

Transactions of the Illinois State Academy of Science. Springfield, IL: Illinois State Academy of Science.

Transactions of the Kansas Academy of Science.
Lawrence, KS: Kansas Academy of Science, 1903-.

U. S. Geol. Surv., Misc. Field Stud. Map. U. S. Geological Survey, Miscellaneous Field Studies Map. Reston, Virginia.

University of Louisville Studies in Paleontology and Stratigraphy. Louisville, KY: University of Louisville.

Water-Resources Investigations. [Reston, VA]: U. S. Geological Survey, 1972-.

Water Resources Research. Washington, DC: American Geophysical Union, 1965-.

Water Science and Technology. Oxford-New York: Pergamon Press.

INTENTIONAL BLANK PAGE

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

BIBLIOGRAPHY

- Alexander, John D. see Krishnan, P.
- Algermissen, S. T. see Stover, C. W.
- Anderson, Raymond R. Tri-State field conference: Iowa Geology, No. 4, p. 20-21, illus., January 1979.
- Anderson, T. C.; and Lukas, R. G. Preconsolidation pressure predicted using S_u/ρ ratio: in Laboratory shear strength of soil (Yong, R. N., editor; et al.), ASTM Special Technical Publication = American Society for Testing and Materials Special Technical Publication, No. 740, p. 502-515, illus. (incl. 3 tables), 12 ref., 1981.
- Anonymous. Physiographic divisions of Illinois: Ill. State Geol. Surv., Urbana, IL, United States, 1 sheet, physiogr. map 1:2,534,400, 1970.
- Anonymous. Index of surface-water records to September 30, 1970; Part 5, Hudson Bay and upper Mississippi River basins: Geological Survey Circular, No. 655, 65 p., 1 table, sketch map, 1971.
- Anonymous. Index of surface-water records to September 30, 1970; Part 3, Ohio River basin: Geological Survey Circular, No. 653, 71 p., 1 table, sketch map, 1971.
- Anonymous. Urban geology of America; Peoria, Illinois: Earth Science, Vol. 28, No. 5, p. 240, October 1975.
- Anonymous. Illinois [abstr.]: in Geological Survey research 1981, Geological Survey Professional Paper, No. 1275, p. 94, 1981 [1982].
- Anonymous. Sediment transport and water quality during urban development in Illinois [abstr.]: Geological Survey Professional Paper, No. 1275, p. 175, 1981 [1982].
- Anonymous. Sohio in new U.S. Steel coal deal: Financial Times, No. 28443, p. 1, 1981.
- Arihood, L. D. see Lapham, W. W.
- Artiola, J.; and Fuller, W. H. Limestone liner for landfill leachates containing beryllium, cadmium, iron, nickel, and zinc: Soil Science, Vol. 129, No. 3, p. 167-179, illus. (incl. 5 tables), 33 ref., March 1980.
- Ault, Curtis H. see Sullivan, Dan M.
- Avila, John. Regional setting of the Cambro-Ordovician in the Illinois Basin: in Proceedings of the technical sessions, Kentucky Oil and Gas Association thirty-eighth annual meeting (Luther, Margaret K., editor), Special Publication - Kentucky Geological Survey, No. 3, p. 60-76, sects., sketch maps, 7 ref., 1981.
- Baker, Clyde N. Jr. see Bushell, Ted D.
- Barcelona, Michael J. Chemical characteristics of lake sediments: in Proceedings of a round table on reclaiming and managing lakes in Illinois (Keasler, Linda, editor), Special Report - Water Resources Center, University of Illinois at Urbana-Champaign, No. 12, p. 10-20, illus. (incl. 1 table, sect., sketch map), February 1981.
- Barcelona, Michael J. see also Naymik, Thomas G.
- Bardack, David; and Richardson, Eugene S., Jr. New agnathous fishes from the Pennsylvanian of Illinois: Fieldiana: Geology, Vol. 33, No. 26, p. 489-510, 1 table, 8 ref., June 23, 1977. *Pipiscius zangerli*, *Gilpichthys greeni*.
- Barrows, Mary H.; Cluff, Robert M.; and Harvey, Richard D. Petrology and maturation of dispersed organic matter in the New Albany Shale Group of the Illinois Basin [abstr.]: in Energy for the eighties; a joint DOE/EGSP-ES/AAPG symposium (Woodfork, Larry O., chairperson; et al.), U. S. Dep. Energy, Washington, DC, United States, Am. Assoc. Pet. Geol., Tulsa, OK, United States, p. 9, 218 anal., 1979.
- Batra, R. C. see Keith, H. D.
- Bauer, Robert A.; and DeMaris, Philip J. Geologic investigation of roof and floor strata; longwall demonstration, Old Ben Mine No. 24; final technical report; Part 1: 49 p., illus. (incl. 2 tables), 26 ref., April 1982. (Rep. No. FE/9007-1) available from: Ill. State Geol. Surv., Champaign, IL, United States.

- Bauer, Robert A. *see also* DuMontelle, Paul B.
- Baxter, James W.; and Bradbury, J. C. Bertrandite at Hicks Dome, Hardin County, Illinois: Transactions of the Illinois State Academy of Science, Vol. 73, No. 1, p. 1-13, illus. (incl. 5 anal., 5 tables, 1 plates, geol. sketch maps), 20 ref., 1980.
- Baxter, James W. *see also* Goodwin, Jonathan H.
- Beard, J. G. *see* Kepferle, R. C.
- Bengal, Lawrence E. *see* Jacobson, Russell J.
- Benson, Curtis R. *see* Sasman, Robert T.
- Berg, R. C. Use of stepwise discriminant analysis to assess soil genesis in a youthful sandy environment: Soil Science, Vol. 129, No. 6, p. 353-365, 8 tables, sketch maps, 20 ref., June 1980.
- Bhagwat, Subhash; and Collias, Theodore J. The future competitive position of coal from the Illinois Basin: Illinois Mineral Note, No. 81, 25 p., illus. (incl. 20 tables, sketch maps), 13 ref., July 1981.
- Bhowmik, Nani G. Hydraulics of flow in the Kaskaskia River, Illinois: Report of Investigation - Illinois State Water Survey, No. 91, 116 p., illus. (incl. 13 tables, sects., sketch maps), 38 ref., 1979.
- Bhowmik, Nani G.; and Bonini, Allen P. An historical review of the Kankakee River basin development: Transactions of the Illinois State Academy of Science, Vol. 74, No. 1-2, p. 203-216, sketch maps, 19 ref., 1981.
- Bhowmik, Nani G. *see also* Ivens, J. Loreena
- Blacic, J. D.; Halleck, P. H.; D'Onfro, P.; *et al.* Thermomechanical properties of Galesville Sandstone: in Mechanical behavior of crustal rocks; the Hardin volume (Carter, Neville L., editor; *et al.*), Geophysical Monograph, No. 24, p. 153-159, illus. (incl. 2 tables), 10 ref., 1981.
- Boast, Charles W. *see* Indorante, Sam J.
- Boes, R. *see* Weaver, L.
- Bogan, Arthur E. *see* Parmalee, Paul W.
- Boland, D. H. P. *see* Schaeffer, David J.
- Bonini, Allen P. *see* Bhowmik, Nani G.
- Brabets, T. P. (investigator). Surface-mine hydrology, Illinois [abstr.]: Geological Survey Professional Paper, No. 1275, p. 226, 1981.
- Bradbury, J. C. *see* Baxter, James W
- Bradford, Susan C. *see* DuMontelle, Paul B.
- Braile, L. W.; Keller, G. R.; Hinze, W. J.; *et al.* An ancient rift complex and its relation to contemporary seismicity in the New Madrid seismic zone: Tectonics, Vol. 1, No. 2, p. 225-237, illus. (incl. sketch maps), 45 ref., April 1982.
- Brigham, Allison R. *see* Ivens, J. Loreena
- Brill, E. Downey, Jr. *see* Hopkins, Lewis D.
- Bristol, Hubert M. *see* Nelson, W. John
- Brown, F. W. *see* Hatcher, P. G.
- Brugam, Richard B.; and Carlson, Mark A. Lead-210 analyses of sediment accumulation rates in five southern Illinois surface mine lakes: in Proceedings, 1981 symposium on surface mining hydrology, sedimentology, and reclamation (Graves, D. H., chairperson), p. 195-199, illus. (incl. 3 tables), 11 ref., December 1981. (Rep. No. UKY BU126) available from: Univ. Ky., Coll. Eng., Lexington, KY, United States.
- Bucek, Milena F. Sedimentation ponds and their impact on water quality: in Proceedings, 1981 symposium on surface mining hydrology, sedimentology, and reclamation (Graves, D. H., chairperson), p. 345-354, illus. (incl. 7 tables), December 1981. (Rep. No. UKY BU126) available from: Univ. Ky., Coll. Eng., Lexington, KY, United States.
- Burris, Charles B.; Morse, Walter J.; and Naymik, Thomas G. Assessment of a regional aquifer in central Illinois: Cooperative Groundwater Report. Illinois, State Water Survey, Vol. 6, 79 p., illus. (incl. 8 tables, sects., geol. sketch map), 32 ref., 1981.
- Buschbach, T. C. New Madrid seismotectonic study; activities during fiscal year 1979: 143 p., illus. (incl. tables, sketch maps), 11 ref., March 1980. (Rep. No. NUREG/CR-0977) available from: NTIS, Springfield, VA, United States. Individual papers are cited separately.
- Bushell, Ted D.; Baker, Clyde N. Jr.; Horvath, R. G.; *et al.* Caissons socketed in sound mica schist; discussions and closure: Journal of the Geotechnical Engineering Division, Vol. 108, No. GT7, p. 988-994, illus., 7 ref., July 1982. For reg. to orig. artic. by Koutsoftas, D. C., *see* J. Geotech. Eng. Div., Proc. Am. Soc. Civ. Eng., Vol. 107, No. GT6, June 1981.
- Butler, B. J. *see* Krishnan, P.
- Carlson, Mark A. *see* Brugam, Richard B.
- Carnaghi, Gary Louis. The Kankakee Flood and the origin of the Parkland Sand, northeastern Illinois: Master's, 1979, Univ. of Iowa, Iowa City, IA.
- Carozzi, A. V. *see* Rich, D. W.

Carpenter, G. L. see Lindau, Robert D.

-- see van den Berg, Jacob

Carr, C. see Leith, C. J.

Cartwright, Keros see Kempton, John P.

Catt, Paul E. see Siefker, Joseph R.

Chou, S. F. J. see Griffin, R. A.

Chugh, Y. P.; Okunola, A.; and Hall, M. Moisture absorption and swelling behavior of the Dykersburg Shale: Transactions of the American Institute of Mining, Metallurgical, and Petroleum Engineers Incorporated, Vol. 268, p. 1808-1812, illus. (incl. 2 tables), 11 ref., 1980 [1981]. AIME annual meeting, Las Vegas, Nev., Feb. 1980.

Chugh, Yoginder P.; and Missavage, Roger A. Effects of moisture on strata control in coal mines: Eng. Geol., Vol. 17, No. 4, p. 241-255, illus. (incl. 5 tables), 27 ref., November 1981.

Clarke, Robert P. see Schaeffer, David J.

Clemence, S. P.; and Pool, J. M. Model studies of induced slope failures for strip mine reclamation: Congres International - Association International de Geologie de l'Ingenieur = International Congress - International Association of Engineering Geology, No. 3, Special sessions, p. 43-53, illus. (incl. 5 tables), 12 ref., 1978.

Clemence, S. P.; and Westphal, J. A. The response of the Middle Mississippi to human presence; 1821-1974: Congres International - Association International de Geologie de l'Ingenieur = International Congress - International Association of Engineering Geology, No. 3, Seccion 1, Volumen 2, p. 201-211, illus. (incl. 1 table, sketch maps), 7 ref., 1978.

Cluff, R. M. see Stevenson, D. L.

Cluff, Robert M.; and Dickerson, Donald R. Natural gas potential of the New Albany Shale Group (Devonian-Mississippian) in southeastern Illinois: SPEJ. Society of Petroleum Engineers Journal, Vol. 22, No. 2, p. 291-300, illus. (incl. 1 table, sketch maps), 16 ref., April 1982.

Cluff, Robert M. (organizer); Lineback, Jerry A. (organizer); Lloyd, R. Michael; et al. Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop: Apr. 23-24, 1981, Mount Vernon, IL, United States. Ill. Geol. Surv., Mount Vernon, IL, United States, 88 p., illus. (incl. sects., strat. cols., block diag., sketch maps), 31 ref., April 1981.

Cluff, Robert M. see also Barrows, Mary H

-- see also Nuhfer, Edward B.

Cobb, James C.; and Fraser, Gordon S. Application of sedimentology to development of sand and gravel resources in McHenry and Kane counties, northeastern Illinois: Illinois Mineral Note, No. 82, 17 p., illus. (incl. sketch maps), 8 ref., December 1981.

Cobb, James C. see also Fraser, Gordon S.

Cobb, James Collins. Geology and geochemistry of sphalerite in coal: 220 p., Doctoral, 1981, Univ. of Illinois, Urbana, IL, available from: Univ. Microfilms.

Coleman, Dennis D. Illinois State Geological Survey radiocarbon dates V: Radiocarbon, Vol. 16, No. 1, p. 105-117, 7 ref., 1974.

Coleman, Dennis D.; and Liu, Chao Li. Illinois State Geological Survey radiocarbon dates VI: Radiocarbon, Vol. 17, No. 2, p. 160-173, 7 ref., 1975.

Coleman, Dennis D. see also Liu, Chao Li

Collias, Theodore J. see Bhagwat, Subhash

Collinson, Charles. Devonian-Mississippian biostratigraphy of northeastern Missouri and western Illinois: Ill. State Geol. Surv., Ill., United States, Vol. 3, 23 p., illus. (incl. sects.), August 1969. Field trip No. 3 of the North Am. Paleontol. Conv. held on Sept. 3-4, 1969.

Combs, S. M.; Dowdy, R. H.; Gupta, S. C.; et al. Chemical properties and mineralogical characteristics of selected dredged material: Journal of Environmental Quality, Vol. 11, No. 2, p. 255-261, illus., 41 ref., June 1982.

Conkin, Barbara M. see Conkin, James E.

Conkin, James E.; and Conkin, Barbara M. Early Mississippian (Kinderhookian) smaller foraminifera from the McCraney Limestone of Missouri and Illinois: University of Louisville Studies in Paleontology and Stratigraphy, No. 15, 39 p., illus. (incl. 33 tables, 3 plates, sketch map), 24 ref., 1981.

Conroy, P. J. see Keith, H. D.

Cook, James R. see Sargent, Kenneth A.

Cronauer, D. C.; Ruberto, R. G.; and Young, D. C. Liquefaction of Kentucky and Illinois coals in a batch microreactor [abstr.]: in Chemistry and physics of coal utilization, 1980 (Copper, Bernard R., editor; et al.), A. I. P. Conference Proceedings, No. 70, p. 468, 1981. Topical conference of the American Physical Society.

Dancer, W. S. see McSweeney, K.

Daniels, J. J.; Scott, J. H.; and Olhoeft, G. R. Geophysical well logs for drill hole UPH-3,

- Stephenson County, Illinois: Open-File Report (United States Geological Survey, 1978), No. 81-0237, 7 p., 1981. available from: U. S. Geol. Surv., Open-File Serv. Sect., West. Distrib. Branch, Denver, CD, United States.
- Davis, Anthony M. see Whittecar, G. Richard
- Debuchananne, G. D. see Stevens, P. R.
- DeMaris, Philip J. see Bauer, Robert A.
- Dickerson, Donald R. see Cluff, Robert M.
- Dimichele, William A.; and Phillips, Tom L. Stratigraphic-geographic patterns of change in Pennsylvanian coal-swamp vegetation [abstr.]: in Abstracts of papers to be presented at the meetings of the Botanical Society of America and affiliated groups at Indiana University (Heimsch, Charles, leader), Miscellaneous Series Publication - Botanical Society of America, No. 160, p. 44, 1981.
- DiMichele, William A. see also Phillips, Tom L.
- D'Onfro, P. see Blacic, J. D.
- Dowdy, R. H. see Combs, S. M.
- DuMontelle, Paul B.; Bradford, Susan C.; Bauer, Robert A.; et al. Mine subsidence in Illinois: facts for the homeowner considering insurance: Environmental Geology Notes, Vol. 99, 24 p., illus. (incl. sect., strat. col., sketch map), 7 ref., August 1981.
- Dyhouse, Gary R. Sediment analyses for urbanizing watersheds: Journal of the Hydraulics Division, Vol. 108, No. HY3, p. 399-418, illus. (incl. sketch map), 9 ref., March 1982.
- Edkins, John E. see Krothe, Noel C.
- Eisel, Leo M. The national ground water picture: in Proceedings of the Thirteenth biennial conference on ground water (Anonymous), Report - California Water Resources Center, No. 53, p. 33-38, November 1981.
- Elyn, Jaclyn Rendall see van den Berg, Jacob
- Erickson, J. R. see Dlimpio, J. C.
- Fay, William M. see Sargent, Kenneth A.
- Fehrenbacher, J. B. see Hassett, J. J.
- see Sharma, A. K.
- see Snarski, R. R.
- Fitzgerald, K. K. see Zuehlis, E. E.
- Flemal, Ronald C. see Springer, James Warren
- Foster, J. B. see Olimpio, J. C.
- Foster, James B. Sheffield, Illinois: in U. S. Geological Survey research in radioactive waste disposal; fiscal year 1979 (Schneider, Robert; et al.), Geological Survey Circular, No. 847, p. 60-61, 1982.
- Francis, Carl A. Fluorite and associated minerals from South Illinois; the Rex and Julie Bannister Collection: Rocks and Minerals, Vol. 57, No. 2, p. 63-71, illus. (incl. 4 plates, sketch maps), 12 ref., April 1982.
- Frank, Thomas D. A comprehensive inventory of Illinois stream characteristics: in Remote sensing; an input to geographic information systems in the 1980's (Richason, Benjamin F., Jr., editor), Proceedings of the Annual William T. Pecora Memorial Symposium on Remote Sensing, No. 6, p. 393-401, illus. (incl. 2 tables), 9 ref., 1981.
- Fraser, Gordon S.; and Cobb, James C. Late Wisconsinan proglacial sedimentation along the West Chicago Moraine in northeastern Illinois: Journal of Sedimentary Petrology, Vol. 52, No. 2, p. 473-491, illus. (incl. 1 table, sketch maps), 51 ref., June 1982.
- Fraser, Gordon S. see also Cobb, James C.
- Fraser, H. L.; Hsieh, K. C.; and Twigg, M. E. Analytical transmission electron microscopy in minerals processing: in Process mineralogy: extractive metallurgy, mineral exploration, energy resources (Hausen, Donald M., editor; et al.), Am. Inst. Min. and Metall., New York, NY, United States, p. 89-105, 1 table, 30 ref., 1981. 110th AIME annual meeting, TMS-AIME Process Mineralogy Committee.
- Fraunfelter, George H. Megafossil zonation of the Lingle and St. Laurent limestones (Middle Devonian) of southern Illinois and southeastern Missouri: Transactions of the Illinois State Academy of Science, Vol. 73, No. 3, p. 74-83, illus. (incl. strat. col., sketch maps), 48 ref., 1980.
- Frest, T. J.; and Strimple, Harrell L. New Manicrinidae (Crinoidea, Inadunata, Dendrocrinina) from the Silurian of Illinois and Indiana: Journal of Paleontology, Vol. 56, No. 3, p. 720-728, 1 table, 1 plate, 22 ref., May 1982.
- Frost, R. R.; and Griffin, R. A. Effect of pH on adsorption of arsenic and selenium from landfill leachate by clay minerals: in Proceedings of the 41st annual meeting, Soil Science Society of America (Stewart, B. A., editor), Soil Science Society of America Journal, Vol. 41, No. 1, p. 53-57, illus. (incl. 1 table), 18 ref., February 1977.
- Frye, J. C. see Willman, H. B.
- Frye, John C. see Runge, E. C. A.

Fuller, W. H. see Artiola, J.

Galloway, D. L. (investigator). Ground-water flow effects from strip mining in Illinois [abstr.]: Geological Survey Professional Paper, No. 1275, p. 226, 1981.

Garklavs, George see Graf, J. B.

Gast, R. G. see Combs, S. M.

Geodata International. Aerial radiometric and magnetic survey, Quincy National Topographic Map, Illinois/Missouri; New York-Illinois Project: variously paginated, 7 tables, geol. map 1:500,000, geophys. surv. maps 1:500,000, 1981. (Rep. No. GJBX-27-82) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, CO, United States. National Uranium Resource Evaluation Program; includes microfiche.

Geodata International. Aerial radiometric and magnetic survey, St. Louis National Topographic Map, Illinois/Missouri; New York-Illinois Project: variously paginated, illus. (incl. 7 tables; geol. map 1:500,000; geophys. surv. maps 1:500,000), 1981. (Rep. No. GJBX-26-82) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, CO, United States. National Uranium Resource Evaluation Program; includes microfiche.

Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project: unpaginated, illus. (incl. tables, geol. sketch maps), 18 ref., 1981. (Rep. No. GJBX-2882) available from: Geodata Int., Dallas, TX, United States. Final report; prep. for U. S. Dep. Energy.

Gibb, James P.; Schuller, Rudolph M.; and Griffin, Robert A. Procedures for the collection of representative water quality data from monitoring wells: Cooperative Groundwater Report, Illinois, State Water Survey, No. 7, 61 p., illus. (incl. 10 tables), 27 ref., 1981.

Gibb, James P. see also Sasman, Robert T.

Gilkeson, Robert H.; and Holtzman, Richard B. 226Ra and 228Ra in ground water of the Cambrian-Ordovician aquifer system in northern Illinois [abstr.]: in Proceedings of University of Missouri's 15th annual conference on trace substances in environmental health (Hemphill, Delbert D., editor), Trace Substances in Environmental Health, No. 15, p. 86, June 1981.

Gilmore, A. R.; and Matis, D. S. Effects of past agricultural practices on the soil-phosphorus system and growth of planted pines: Soil Science, Vol. 131, No. 5, p. 313-319, 3 tables, 24 ref., May 1981.

Goldman, Barbara Ellen. The extent of stream disequilibrium in northern Illinois:

Master's, 1981, Northern Illinois Univ., De Kalb, IL.

Goodwin, Jonathan H.; and Baxter, James W. High-calcium, high-reflectance limestone resources of Illinois: in Symposium on industrial minerals of the upper Midwest (Carr, Donald D., editor; et al.), Geological Society of America Bulletin, Vol. 92, No. 9, p. I 621-I 628, illus. (incl. 1 table, geol. sketch map), 21 ref., September 1981.

Graf, J. B.; Garklavs, George; and Oberg, K. A. A technique for estimating time of concentration and storage coefficient values for Illinois streams: Water-Resources Investigations, WRI 82-22, 16 p., 1982. (Rep. No. PB-82 218 793) available from: NTIS, Springfield, VA, United States.

Graf, J. B. (investigator). Longitudinal stream-dispersion measurements [abstr.]: Geological Survey Professional Paper, No. 1275, p. 193, 1981 [1982].

Grandt, Alten F. Problems in reclaiming farmland in Illinois: Mining Engineering, Vol. 33, No. 9, p. 1347-1351, illus. (incl. 4 tables), 11 ref., September 1981.

Grant, N. K. see Kessen, K. M.

Grant, Ulyses Simpson, III. The effect of the National Environmental Education Act on secondary and elementary schools in two mid-western states: 204 p., Doctoral, 1981, Univ. of Michigan, Ann Arbor, MI. available from: Univ. Microfilms.

Gregg, D. W. see Hassett, J. J.

Griffin, R. A.; and Chou, S. F. J. Attenuation of polybrominated biphenyls and hexachlorobenzene by earth materials: Environmental Geology Notes, No. 87, 53 p., illus. (incl. 22 anal., 2 tables), 68 ref., July 1980.

Griffin, R. A. see also Frost, R. R.

Griffin, Robert A. see Gibb, James P.

-- see Schuller, Rudolph M.

Grimes, Walter W. Geotechnical investigation for the Des Plaines River system tunnels and shafts: in Proceedings, 28th annual highway geology symposium (Anonymous), Proceedings of the Annual Highway Geology Symposium, No. 28, p. 83-95, illus. (incl. sketch map, strat. col.), 12 ref., 1977.

Gross, David L. Governmental responses to the problem of sedimentation [abstr.]: Int. Geol. Congr. Abstr.--Congr. Geol. Int., Resumes, No. 26, Vol. 3, p. 1287, 1980.

Gross, David L. see also Ivens, J. Loreena

- Grundl, Timothy J. A stable-isotopic view of the Cambro-Ordovician aquifer system in northern Illinois: Master's, 1980, Northern Illinois Univ., De Kalb, IL.
- Gruner, Dennis B.; and Hood, William C. Geochemistry of drainage from a coal refuse pile, Pyramid Mine, Perry County, Illinois: in *Proceedings, 1981 symposium on surface mining hydrology, sedimentology, and reclamation* (Graves, D. H., chairperson), p. 355-357, 3 tables, 4 ref., December 1981. (Rep. No. UKY BU126) available from: Univ. Ky., Coll. Eng., Lexington, KY, United States.
- Gum, Cecil see Cluff, Robert M.
- Gupta, S. C. see Combs, S. M.
- Habermann, Gail M.; and Hole, Francis D. Soilscape analysis in terms of pedogeomorphic fabric: an explanatory study: in *Proceedings of the 44th annual meeting, Soil Science Society of America* (Larson, W. E., president), Soil Science Society of America Journal, Vol. 44, No. 2, p. 336-340, illus. (incl. 2 tables, sketch map), 23 ref., April 1980. Dep. Geogr., Univ. Wis.; Contrib.
- Hagerty, D. J.; Spoor, M. F.; and Ullrich, C. R. Bank failure and erosion of the Ohio River: Eng. Geol., Vol. 17, No. 3, p. 141-158, illus. (incl. 3 tables), 6 ref., October 1981.
- Hall, M. see Chugh, Y. P.
- Halleck, P. H. see Blacic, J. O.
- Hamilton, Robert M.; and Russ, David P. Seismotectonics of the New Madrid region: in *Proceedings of Conference XIII: Evaluation of regional seismic hazards and risk* (Hays, Walter W., editor), Open-File Report (United States Geological Survey, 1978), No. 81-0437, p. 55-73, illus. (incl. sketch maps), 24 ref., 1981. available from: U. S. Geol. Surv., Open-File Serv. Sect., West. Distrib. Branch, Denver, CO, United States.
- Hansel, Ardith K. see Reinertsen, David L.
- Harrison, Wyman; and Van Luik, Abraham. Suitability of dredged material for reclamation of surface-mined land: the Ottawa, Illinois, Demonstration Project: ANL/ES - Argonne National Laboratory, No. 73, 126 p., illus. (incl. tables), 48 ref., December 1979. available from: NTIS, Springfield, VA, United States. Final report.
- Harvey, Richard D. see Barrows, Mary H.
- Hassett, J. J.; Gregg, D. W.; and Fehrenbacher, J. B. Formation of calcium carbonate concretions in natric horizons of Illinois soils: Soil Science, Vol. 122, No. 4, p. 202-205, illus. (incl. 2 tables), 9 ref., October 1976.
- Hatcher, P. G.; Lyons, P. C.; Brown, F. W. (investigators); et al. Coalification of tissues in a coal ball from the Illinois basin [abstr.]: Geological Survey Professional Paper (Washington), No. 1275, p. 31, 1981 [1982].
- Healy, R. W. see Olimpio, J. C.
- Heigold, Paul C. see Kempton, John P.
- Hempen, G. L.; Kloisterman, M. J.; Moore, B. H.; et al. Zonation of central U.S. earthquake sources: in *International conference on recent advances in geotechnical earthquake engineering and soil dynamics; Vol. 1* (Prakash, Shamsher, editor), Univ. Mo. at Rolla, Rolla, MO, United States, p. 541-544, sketch map, 5 ref., 1981.
- Hempen, Gregory L.; and Navin, Michael J. Explorations for the pile founded Lock & Dam No. 26 replacement [abstr.]: in *AEG 25th annual meeting* (Crepeau, P. M., chairperson; et al.), Annual Meeting - Association of Engineering Geologists, No. 25, p. 45, 1982.
- Herrmann, Robert B. Preliminary results of microearthquake studies in the central Mississippi Valley: in *Proceedings of Conference XIII: Evaluation of regional seismic hazards and risk* (Hays, Walter W., editor), Open-File Report (United States Geological Survey, 1978), No. 81-0437, p. 30-54, illus. (incl. sketch maps), 2 ref., 1981. available from: U. S. Geol. Surv., Open-File Serv. Sect., West. Distrib. Branch, Denver, CO, United States.
- High Life Helicopters; and QEB. Airborne gamma-ray spectrometer and magnetometer survey; Peoria, Decatur, Belleville quadrangles (IL.); final report: variously paginated, illus., 1981. (Rep. No. GJBX-241-81) available from: U. S. Dep. Energy, Grand Junction Off., Grand Junction, CO, United States. National Uranium Resource Evaluation Program; includes microfiche; in several volumes.
- Hill, James J.; and Tuchman, Robert J. The mineral industry of Illinois: U. S. Bur. Mines, United States, 12 p., illus., 1982. Preprint from Minerals yearbook, 1980, U. S. Bur. Mines.
- Hinze, W. J. see Braile, L. W.
- Hole, Francis D. see Habermann, Gail M.
- Holtzman, Richard B. see Gilkeson, Robert H.
- Hood, William C. see Gruner, Dennis B.
- Hopkins, Lewis D.; Brill, E. Downey, Jr.; Kurtz, Kenneth B.; et al. Analyzing floodplain policies using an interdependent land use allocation model: Water Resources Research, Vol. 17, No. 3, p. 469-477, 2 tables, sketch maps, 22 ref., June 1981.

- Horvath, R. G. see Bushell, Ted D.
- Hsieh, K. C. see Fraser, H. L.
- Huang, Scott Lin. Swelling behavior of Illinois coal shales: 209 p., Doctoral, 1981, Univ. of Missouri, Rolla, MO. available from: Univ. Microfilms.
- Hummel, John W. see Krishnan, P.
- Illinois Institute of Natural Resources, Environmental Management Division. Illinois Institute of Natural Resources project list, January 1, 1981: Document - Illinois Institute of Natural Resources, No. 81/01, 91 p., 91 ref., January 1981. Project abstracts for fiscal years 1978, 1979 and 1980.
- Indiana University, School of Public and Environmental Affairs. Permit requirements for energy and other natural resources for the State of Illinois: Open-File Report (United States Geological Survey, 1978), No. 81-1257, 72 p., 1981. available from: U. S. Geol. Surv., Open-File Serv. Sect., West. Distrib. Branch, Denver, CO, United States.
- Indorante, S. J.; and Jansen, I. J. Soil variability on surface-mined and undisturbed land in southern Illinois: in Proceedings of the 45th annual meeting, Soil Science Society of America (Stewart, B. A., president), Soil Science Society of America Journal, Vol. 45, No. 3, p. 564-568, 4 tables, 9 ref., 1981. Univ. Ill., Dep. Agron.; Contrib.
- Indorante, Sam J.; Jansen, Ivan J.; and Boast, Charles W. Surface mining and reclamation; initial changes in soil character: Journal of Soil and Water Conservation, Vol. 36, No. 6, p. 347-350, 1 anal., 1 table, 12 ref., December 1981.
- Ivens, J. Loreena; Bhowmik, Nani G.; Brigham, Allison R.; et al. The Kankakee River yesterday and today: ISWS Miscellaneous Publication, Vol. 60, 24 p., illus. (incl. geol. sketch map), 1981.
- Jacobson, Russell J.; and Bengal, Lawrence E. Strippable coal resources of Illinois; Part 7, Vermilion and Edgar counties: Circular - Illinois State Geological Survey, Vol. 521, 24 p., 7 tables, strat. cols., sketch maps, econ. geol. maps 1:133,333, 1981.
- Jansen, I. J. see Indorante, S. J.
- see McSweeney, K.
- see Snarski, R. R.
- Jansen, Ivan J. see Indorante, Sam J.
- Johnson, Ralph G. see Thompson, Ida
- Johnston, Arch C. On the use of the frequency-magnitude relation in earthquake risk assessment: in Proceedings of Earthquakes and earthquake engineering; the eastern United States; two volumes (Beavers, James E., chairperson; et al.), Ann Arbor Sci. Publ., Ann Arbor, MI, United States, p. 161-181, illus. (incl. 1 table, sketch maps), 44 ref., 1981. Assessing the hazard; evaluating the risk.
- Jollie, Malcolm see Kolata, Dennis R.
- Jones, B. A., Jr. see Sharma, A. K.
- Jones, Bob. Aragonite; for a common mineral, it's amazingly scarce: Rock & Gem, Vol. 11, No. 10, p. 40-41, 44-46, 77-79, illus., October 1981.
- Jones, Robert L. see Omuetti, J. A. I.
- Kahle, R.; and Rowlands, J. Evaluation of trench subsidence and stabilization at Sheffield low-level radioactive waste disposal facility, Sheffield, Illinois; final report; October 15, 1980 - March 30, 1981: 177 p., illus. (incl. 14 tables, sketch maps), May 1981. (Rep. No. NUREG/CR-2101) available from: NTIS, Springfield, VA, United States. Includes 6 sheets charting subsidence.
- Kean, William F. Paleomagnetism of the Late Ordovician Neda iron ore from Wisconsin, Iowa and Illinois: Geophysical Research Letters, Vol. 8, No. 8, p. 880-882, illus. (incl. 1 table, sketch map), 8 ref., August 1981.
- Kearney, Michael S. Photometric detection of soil moisture using color and color infrared films: in Remote sensing of earth resources (Shahrokh, F., editor), Annual Remote Sensing of Earth Resources Conference, No. 5, Vol. 5, p. 435-451, illus., 12 ref., 1977.
- Keifer, Clint J. The Chicago region's valuable water resources; closure: Journal of the Water Resources Planning and Management Division, Vol. 108, No. WR1, p. 161-162, March 1982. For reference to original article by Keifer, C. J. see J. Water Resour. Plann. Manage. Div., Proc. Am. Soc. Civ. Eng., Vol. 107, July 1980.
- Keith, H. D.; Batra, R. C.; and Conroy, P. J. Finite element analysis of a longwall mine: in The state of the art in rock mechanics (Summers, David A., chairperson), Proceedings - Symposium on Rock Mechanics, No. 21, p. 9-15, illus. (incl. 1 table), 3 ref., September 1980.
- Keller, G. R. see Braile, L. W.
- Kempton, John P. Three-dimensional geologic mapping for environmental studies in Illinois: Environmental Geology Notes, No. 100, 43 p., illus. (incl. geol. sketch maps), 50 ref., October 1981.
- Kempton, John P.; Ringler, Robert W.; Heigold, Paul C.; et al. Ground-water resources of northern Vermilion County, Illinois:

- Environmental Geology Notes, No. 101, 36 p., illus. (incl. 3 tables, sects., chart, strat. col., geol. sketch map), 16 ref., October 1981.
- Kenney, T. C. see Bushell, Ted D.
- Kepferle, R. C.; and Beard, J. G. (investigators). Distribution of Devonian algae, *Foerstia*, in the Appalachian and Illinois basins [abstr.]: Geological Survey Professional Paper, No. 1275, p. 59, 1981 [1982].
- Kessen, K. M.; Woodruff, M. S.; and Grant, N. K. Gangue mineral /87_Sr//86_Sr ratios and the origin of mississippi valley-type mineralization: Economic Geology and the Bulletin of the Society of Economic Geologists, Vol. 76, No. 4, p. 913-920, illus. (incl. 90 anal., 1 table, sketch map), 31 ref., July 1981.
- Kettles, Inez M. Till stratigraphy of the Vandalia-Effingham-Marshall region, East-central Illinois: Master's, 1980, Univ. of Illinois, Urbana, IL.
- Killey, Myrna M. Ancient dust storms in Illinois: Bulletin of the Southern California Paleontological Society, Vol. 14, No. 3-4, p. 31-32, sketch map, April 1982.
- Killey, Myrna M. The Dwight mineralogical zone of the Yorkville Till Member, northeastern Illinois: Circular - Illinois State Geological Survey, No. 526, 25 p., illus. (incl. 2 tables, sketch maps), 13 ref., 1982.
- Killey, Myrna M. see also DuMontelle, Paul B.
- Kim, K. W. see Visocky, A. P.
- Klasner, J. S. Geologic map of the Lusk Creek Roadless Area, Pope County, Illinois: U. S. Geol. Surv., Misc. Field Stud. Map, No. MF-1405-A, 1 sheet, geol. map, 1982.
- Kloisterman, M. J. see Hempen, G. L.
- Kolata, Dennis R. Structural framework of the Mississippi Embayment of southern Illinois: annual progress report; fiscal year 1979: in New Madrid seismotectonic study; activities during fiscal year 1979 (Buschbach, T. C.), p. 91-98, illus. (incl. sketch maps), 6 ref., March 1980. (Rep. No. NUREG/CR-0977) available from: NTIS, Springfield, VA, United States.
- Kolata, Dennis R.; and Jollie, Malcolm. Anomalocystitid mitrates (Stylophora-Echinodermata) from the Champlainian (Middle Ordovician) Guttenberg Formation of the Upper Mississippi Valley region: Journal of Paleontology, Vol. 56, No. 3, p. 631-653, illus. (incl. 1 table, 2 plates, sketch maps), 43 ref., May 1982.
- Kolata, Dennis R.; Treworgy, Janis D.; and Masters, John M. Structural framework of the Mississippi Embayment of southern Illinois: Circular - Illinois State Geological Survey, No. 516, 38 p., illus. (incl. 1 table, sect., chart, strat. cols., geol. sketch map), 56 ref., 1981.
- Korbus, Janet M.; and Sipiera, Paul P. A record of life in rock: Earth Science, Vol. 29, No. 3, p. 117-120, illus. (incl. sketch map), 4 ref., June 1976.
- Koutsoftas, Demetrious C. see Bushell, Ted D.
- Kovar, J. A.; and Riecken, F. F. Relation of nonexchangeable potassium and magnesium to development in some midwestern soils: in Proceedings of the 40th annual meeting, Soil Science Society of America (Stewart, B. A., editor), Soil Science Society of America Journal, Vol. 40, No. 4, p. 547-553, illus. (incl. 2 tables, sketch map), 23 ref., August 1976. Iowa Agric. and Home Econ. Exp. Stn., Ames, IA, Proj. No. 1992.
- Krapac, Ivan G. see Schuller, Rudolph M.
- Krausse, H. F. see Nelson, W. John
- Krishnan, P.; Alexander, John D.; Butler, B. J.; et al. Reflectance technique for predicting soil organic matter: in Proceedings of the 44th annual meeting, Soil Science of America (Larson, W. E., president), Soil Science Society of America Journal, Vol. 44, No. 6, p. 1282-1285, illus. (incl. 4 tables), 9 ref., December 1980. Univ. Ill., Agric. Eng. Dep.: Contrib.
- Krothe, Noel C.; Edkins, John E.; and Schubert, Jeffrey P. Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois: in Proceedings, 1980 Symposium on surface mining hydrology, sedimentology, and reclamation (Graves, Donald H., editor; et al.), p. 455-463, illus. (incl. 7 tables, sketch maps), 14 ref., December 1980. (Rep. No. UKY BU123).
- Kurtz, Kenneth B. see Hopkins, Lewis D.
- Lane, H. Richard. The Burlington Shelf (Mississippian, North-central United States): Geologica et Palaeontologica, No. 12, p. 165-176 (incl. German sum.), illus. (incl. sketch map), 60 ref., 1978.
- Lapham, W. W.; and Arihood, L. D. (investigators). Large yields from glacial drift and bedrock formations [abstr.]: in Geological Survey research 1981, Geological Survey Professional Paper, No. 1275, p. 94, 1981 [1982].
- Larson, Curtis L. Effects of wetland drainage on surface runoff: in Selected proceedings of the Midwest conference on wetland values and management (Richardson, Brandt, editor), Minn. Water Plann. Board, St. Paul, MN, United States, p. 117-120, 2 ref., 1981.

- Larson, W. E. see Combs, S. M.
- Lazaro, T. R. (investigator). Seasonal relations between streamflow and suspended-sediment discharge [abstr.]: Geological Survey Professional Paper, No. 1275, p. 175, 1981 [1982].
- Leary, Richard L. Early Pennsylvanian geology and paleobotany of the Rock Island County, Illinois, area; Part 1, Geology: Reports of Investigations - Illinois State Museum, No. 37, 88 p., illus. (incl. 3 tables, 7 plates, sects., strat. cols., geol. sketch maps), 178 ref., 1981. This paper is based on a Doctoral thesis submitted to the University of Illinois (no date given); one of the appendices contains a computer program for plotting data points.
- Leary, Richard L. see also Sipiera, Paul P.
- Leisman, G. A. The fossil lycopod cone, *Achlamydocarpon varius*, from Carboniferous coal balls of the Illinois Basin [abstr.]: in Kansas Academy of Science, 109th annual meeting; abstracts of contributed papers (Anonymous), Transactions of the Kansas Academy of Science, Vol. 81, p. 159, 1978.
- Leith, C. J.; Schneider, K. A.; and Carr, C. Geophysical investigation of archeological sites: in Section 13; The contribution of geology towards management of the environment (Jacobson, G., convener), Int. Assoc. Eng. Geol., Bull., No. 14, p. 123-128 (incl. French, English sum.), illus. (incl. sketch maps), 10 ref., December 1976. 25th international geological congress.
- Lidiak, E. G. see Braile, L. W.
- Lindau, Robert D.; Van Den Berg, Jacob; Carpenter, G. L.; et al. East-Central states: in World energy developments, 1980 (Anonymous), AAPG Bulletin, Vol. 65, No. 10, p. 1814-1827, 10 tables, sketch maps, October 1981.
- Lindorff, David E. Hydrogeology of surface coal mines in Illinois: in Proceedings, 1980 Symposium on surface mining hydrology, sedimentology, and reclamation (Graves, Donald H., editor; et al.), p. 33-40, illus. (incl. 21 anal., 3 tables, sketch maps), 13 ref., December 1980. (Rep. No. UKY BU123).
- Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois: Circular - Illinois State Geological Survey, No. 520, 24 p., illus. (incl. strat. cols., sketch maps), 7 ref., 1981.
- Lineback, Jerry A. see also Cluff, Robert M.
- Liu, Chao Li; and Coleman, Dennis D. Illinois State Geological Survey radiocarbon dates VII: Radiocarbon, Vol. 23, No. 3, p. 352-383, 25 ref., 1981.
- Liu, Chao Li see also Coleman, Dennis D.
- Lloyd, R. Michael see Cluff, Robert M.
- Ludwigs, R. Scott see Sasman, Robert T.
- Lukas, R. G. see Anderson, T. C.
- Lyons, P. C. see Hatcher, P. G.
- Mades, D. M. Stage-discharge relations at dams on the Illinois and Des Plaines rivers in Illinois: Open-File Report (United States Geological Survey, 1978), No. 81-1009, 62 p., illus. (incl. 23 tables, sketch maps; index map), 11 ref., 1981. available from: U. S. Geol. Surv., Open-File Serv. Sect., West. Distrib. Branch, Denver, CO, United States.
- Masters, John M. see Kolata, Dennis R.
- Matis, D. S. see Gilmore, A. R.
- McSweeney, K.; Jansen, I. J.; and Dancer, W. S. Subsurface horizon blending; an alternative strategy to B horizon replacement for the construction of post-mined soils: in Proceedings of the 45th annual meeting, Soil Science Society of America (Stewart, B. A., president), Soil Science Society of America Journal, Vol. 45, No. 1-6, p. 794-799, illus. (incl. 5 tables), 13 ref., 1981. Univ. Ill., Dep. Agron.; Contrib.
- Meents, Wayne F. Analyses of natural gas in Illinois: Illinois Petroleum, No. 122, 64 p., 1 table, strat. col., sketch maps, 16 ref., 1981.
- Meyer, Michael. Major problems of lake water quality in Illinois: in Proceedings of a round table on reclaiming and managing lakes in Illinois (Keasler, Linda, editor), Special Report - Water Resources Center, University of Illinois at Urbana-Champaign, No. 12, p. 4-9, 1 anal., 2 tables, 2 ref., February 1981.
- Meyer, Robert P. see Welkie, Carol J.
- Mickle, James E.; and Rothwell, Gar W. Permineralized Alethopteris from the Upper Pennsylvanian of Ohio and Illinois: Journal of Paleontology, Vol. 56, No. 2, Part 1, p. 392-402, 1 table, 2 plates, 33 ref., March 1982.
- Milhous, H. C. see van den Berg, Jacob
- Missavage, Roger A. see Chugh, Yoginder P.
- Mont, H. R. Soil survey of Champaign County, Illinois: U. S. Dep. Agric., Soil Conserv. Serv., Washington, DC, United States, 178 p., illus. (incl. 18 tables; soils maps 1:15,840; colored soils map 1:253,440), 13 ref., March 1982. (Publ. in coop. with Ill. Agric. Exp. Stn.).
- Moore, B. H. see Hempen, G. L.

- Moore, David Warren. Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois: 211 p., Doctoral, 1981, Univ. of Illinois, Urbana, IL. available from: Univ. Microfilms.
- Moore, G. see Weaver, L.
- Moore, Herbert. Chicago region's valuable water resources; discussion: Journal of the Water Resources Planning and Management Division, Vol. 107, No. WR2, p. 587-588, October 1981. For reference to original article by Keifer, C. J., see J. Water Resour. Plann. Manage. Div., Am. Soc. Civ. Eng. Proc., Vol. 106, July 1980.
- Moore, J. S. Illinois groundwater problems and needs: in Proceedings and recommendations of the Workshop on groundwater problems in the Ohio River basin (Ramachandra, Rao A., chairperson; et al.), Purdue Univ. Water Resour. Res. Cent., West Lafayette, OH, United States, p. 13-14, 1981.
- Morse, Walter J. see Burris, Charles B.
- Mortimer, Clifford H. The Lake Michigan pollution case; a review and commentary on the limnological and other issues: Univ. Wis., Cent. Great Lakes Stud., Milwaukee, WI, United States, 156 p., illus. (incl. tables, sketch maps), 57 ref., 1981.
- Murray, H. H. Clay resources of the Midwest states: Mining Engineering, Vol. 34, No. 1, p. 68-71, 5 anal., 2 tables, sketch map, 23 ref., January 1982. SME preprint 80-346, SME-AIME fall meeting, Minneapolis, Minn., Oct. 1980.
- Nakato, Tatsuaki. Sediment-budget study for the upper Mississippi River, GREAT-II reach: IIHR Report, No. 227, 111 p., illus. (incl. 6 tables, sketch maps), 13 ref., April 1981.
- Nance, Roger B.; and Treworgy, Colin G. Strippable coal resources of Illinois: Part 8, Central and southeastern counties: Circular - Illinois State Geological Survey, No. 515, 32 p., illus. (incl. 1 anal., 11 tables, strat. cols., chart, sketch maps; econ. geol. map 1:126,720), 1981. new names.
- Navin, Michael J. see Hempen, Gregory L.
- Naymik, Thomas G.; and Barcelona, Michael J. Characterization of a contaminant plume in ground water, Meredosia, Illinois: Ground Water, Vol. 19, No. 5, p. 517-526, illus. (incl. 2 tables, sketch maps), 14 ref., October 1981.
- Naymik, Thomas G. see also Burris, Charles B.
- Neitzel, Robert S. A suggested technique for measuring landscape changes through archaeology: in Traces of prehistory: papers in honor of William G. Haag (West, Frederick Hadleigh, editor; et al.), Geoscience and Man, Vol. 22, p. 57-70, illus. (incl. sketch maps), 26 ref., 1981.
- Nelson, W. John. Faults and their effect on coal mining in Illinois: Circular - Illinois State Geological Survey, Vol. 523, 38 p., illus. (incl. 1 table, sects., strat. col., block diags., sketch maps), 26 ref., 1981.
- Nelson, W. John; Krausse, H. F.; and Bristol, Hubert M. The Cottage Grove fault system in southern Illinois: Circular - Illinois State Geological Survey, No. 522, 65 p., illus. (incl. sects., strat. cols., sketch maps; struc. contour. map 1:99,400), 1981.
- Niccum, Dwight A. Prevention of shoreline erosion by physical and structural methods: in Proceedings of a round table on reclaiming and managing lakes in Illinois (Keasler, Linda, editor), Special Report - Water Resources Center, University of Illinois at Urbana-Champaign, No. 12, p. 106-109, illus. (incl. sect.), February 1981.
- Norby, Rodney D. see Reinertsen, David L.
- Norman, R. J.; and Stucki, J. W. The determination of nitrate and nitrite in soil extracts by ultraviolet spectrophotometry: in Proceedings of the 45th annual meeting, Soil Science Society of America (Stewart, B. A., president), Soil Science Society of America Journal, Vol. 45, No. 1-6, p. 347-353, illus. (incl. 8 tables), 20 ref., 1981.
- Noscow, Edmund see van den Berg, Jacob
- Nosow, Edmund see Lindau, Robert D.
- Nuhfer, Edward B.; and Cluff, Robert M. Mudrock fabrics and their significance; discussion and reply: Journal of Sedimentary Petrology, Vol. 51, No. 3, p. 1027-1031, illus. (incl. sketch map), 41 ref., 1981. Discussion of two papers: for reference to Cluff, Robert M., see J. Sediment. Petrol., Vol. 50, p. 767, 1980; for reference to Lundegard, Paul D., and Samuels, Neil D., see Vol. 50, p. 781.
- Oberg, K. A. see Graf, J. B.
- O'Hearn, Michael see Sasman, Robert T.
- Ohio River Valley Sanitation Commission. Registry of wells for use in underground injection of wastewater, 1972-1975; a summary of operational characteristics of injection wells in the Ohio Valley region: Ohio River Valley Sanit. Comm., Columbus, OH, United States, 57 p., tables, 8 ref., July 1976.
- Okunola, A. see Chugh, Y. P.
- Olhoeft, G. R. see Daniels, J. J.
- Olimpio, J. C. Argonne National Laboratory site, Illinois: in U. S. Geological Survey research in radioactive waste disposal; fiscal year 1979 (Schneider, Robert; et al.),

- Geological Survey Circular, No. 847, p. 65-66, 3 ref., 1982.
- Olimpio, J. C.; Foster, J. B.; Erickson, J. R. (investigators); *et al.* Radioactive waste-burial sites in Illinois [abstr.]: Geological Survey Professional Paper, No. 1275, p. 236-237, 1981.
- Omuetti, J. A. I.; and Jones, Robert L. Regional distribution of fluorine in Illinois soils: in Proceedings of the 41st annual meeting, Soil Science Society of America (Stewart, B. A., editor), Soil Science Society of America Journal, Vol. 41, No. 4, p. 771-774, illus. (incl. 1 table, sketch maps), 22 ref., August 1977.
- Omuetti, J. A. I.; and Jones, Robert L. Fluorine distribution with depth in relation to profile development in Illinois: in Proceedings of the 44th annual meeting, Soil Science Society of America (Larson, W. E., president), Soil Science Society of America Journal, Vol. 44, No. 2, p. 247-249, illus. (incl. 2 tables, sketch map), 16 ref., April 1980. Dep. Agron., Univ. Ill.; Contrib.
- Parmalee, Paul W.; and Bogan, Arthur E. Vertebrate remains from early European and historic Indian occupations at the Waterman site, Randolph County, Illinois: Transactions of the Illinois State Academy of Science, Vol. 73, No. 3, p. 49-51, 2 ref., 1980.
- Parmalee, Paul W.; and Speth, Janet M. A prehistoric archaeological record of the Pomarine Jaeger, *Stercorarius Pomarinus* (Temminck), from central Illinois: Transactions of the Illinois State Academy of Science, Vol. 74, No. 1-2, p. 29-32, illus., 13 ref., 1981.
- Patterson, G. L. (investigator). Sludge-storage basins recharge ground water in Illinois [abstr.]: Geological Survey Professional Paper, No. 1275, p. 226, 1981.
- Peart, D. B. see Zuenls, E. E.
- Perkins, H. F. see Reddy, M. R.
- Person, Waverly J. Earthquakes, May-June 1981: Earthquake Information Bulletin, Vol. 13, No. 6, p. 225-227, 2 tables, December 1981.
- Phillips, Tom L.; and DiMichele, William A. Paleoecology of Middle Pennsylvanian age coal swamps in southern Illinois; Herrin Coal Member at Sahara Mine No. 6: in Paleobotany, paleoecology, and evolution; Volume 1 (Niklas, Karl J., editor), Praeger Publ., New York, NY, United States, p. 231-284, illus. (incl. 8 tables, geol. sketch maps), 102 ref., 1981. Symposium in honor of Dr. Harlan P. Banks.
- Phillips, Tom L. see also Dimichele, William A.
- Pool, J. M. see Clemence, S. P.
- Poole, Vickie L. see Kempton, John P.
- QEB see High Life Helicopters
- Rabchevsky, George A. Detecting buried river channels by satellite: Earth Science, Vol. 28, No. 4, p. 184-186, August 1975.
- Reagor, B. G. see Stover, C. W.
- Reddy, M. R.; and Perkins, H. F. Fixation of zinc by clay minerals: Proceedings - Soil Science Society of America, Vol. 38, No. 2, p. 229-231, 3 tables, 15 ref., April 1974.
- Reinertsen, David L. A guide to the geology of the Waterloo-Valmeyer area: Guide Leaflet - Illinois State Geological Survey, No. 1981D, 33 p., illus. (incl. geol. sketch maps), 29 ref., October 1981.
- Reinertsen, David L. A guide to the geology of the Danville area: Guide Leaflet - Illinois State Geological Survey, No. 1981B, 44 p., illus. (incl. strat. cols., geol. sketch maps), 14 ref., May 16, 1981.
- Reinertsen, David L.; Hansel, Ardith K.; and Norby, Rodney D. A guide to the geology of the Zion-Lake Bluff area: Guide Leaflet - Illinois State Geological Survey, No. 1981C, 42 p., illus. (incl. geol. sketch maps), 18 ref., October 3, 1981.
- Rich, D. W.; and Carozzi, A. V. Experimental development of porosity in carbonate rocks under simulated deep burial conditions; I. Oomoldic porosity in Mississippian oolitic limestone: Arch. Sci. (Soc. Phys. Hist. Nat. Geneve), Vol. 34, No. 1, p. 5-28 (incl. French sum.), illus. (incl. plate), 11 ref., 1981.
- Richardson, Eugene S., Jr. see Bardack, David
- Riecken, F. F. see Kovar, J. A.
- Riecker, R. E. see Blacic, J. D.
- Ringler, Robert W. see Kempton, John P.
- Robertson, John B. Shallow land burial of low-level radioactive wastes in the USA: in Underground disposal of radioactive wastes; Vol. 2 (Barbreau, A., chairperson; *et al.*), I. A. E. A., Proc. Ser., No. ST1/PUB/S28, p. 253-269, illus. (incl. 3 tables, sketch map), 18 ref., 1980.
- Rockaway, J. D. see Hempen, G. L.
- Rockaway, John D. see Stephenson, Richard W.
- Rolfe, W. D. Ian. Early invertebrate terrestrial faunas: in The terrestrial environment and the origin of land vertebrates (Panchen, A. L., editor), Systematics Association Special Volume, No. 15, p. 117-157, illus. (incl. 2 plates), 118 ref., 1980.

- Rothwell, Gar W. *see* Mickle, James E.
- Rowlands, J. *see* Kahle, R.
- Ruberto, R. G. *see* Cronauer, D. C.
- Runge, E. C. A.; and Frye, John C. Comparison of glacial events in Canterbury, New Zealand, and Illinois, U.S.A., during the last 75,000 years: *in* Ninth congress of the International Union for Quaternary Research; abstracts (Anonymous), Congress of the International Union for Quaternary Research, No. 9, p. 307-308, illus., 1973.
- Rupert, G. B. *see* Hempen, G. L.
- Russ, David P. *see* Hamilton, Robert M.
- Ryan, G. L. *see* Zuehls, E. E.
- Sale, Michael John. Optimization techniques for instream flow allocations: 175 p., Doctoral, 1981, Univ. of Illinois, Urbana, IL. *available from*: Univ. Microfilms.
- Sargent, Kenneth A.; Cook, James R.; and Fay, William M. Data report; Illinois, Indiana, Kentucky, Tennessee, and Ohio; hydrogeochemical and stream sediment reconnaissance: 41 p., 15 tables, sketch maps, 4 ref., February 1982. (Rep. No. GJBX-105-82) (Rep. No. DPST-81-146-25) *available from*: U. S. Dep. Energy, Grand Junction Off., Grand Junction, CO, United States. National Uranium Resource Evaluation Program; includes microfiche.
- Sasman, Robert T.; Schicht, Richard J.; Gibb, James P.; *et al.* Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois: Circular - Illinois State Water Survey, No. 149, 46 p., illus. (incl. 1 table, sketch maps), 10 ref., 1981.
- Schaeffer, David J.; Clarke, Robert P.; Sefton, Donna F.; *et al.* Assessment and classification of selected Illinois lakes through the application of space technology: *in* Satellite hydrology (Deutch, Morris, editor; *et al.*), Proceedings of the Annual William T. Pecora Memorial Symposium on Remote Sensing, No. 5, p. 641-648, illus. (incl. 5 tables), 8 ref., 1981. (Tech. Publ. No. TPS81-1 of Am. Water Resour. Assoc.).
- Schicht, Richard J. *see* Sasman, Robert T.
- Schneider, K. A. *see* Leith, C. J.
- Schubert, Jeffrey P. *see* Krothe, Noel C.
- Schuller, Rudolph M.; Krapac, Ivan G.; and Griffin, Robert A. Evaluation of laboratory-produced leachates used for environmental assessment of coal refuse: *in* Proceedings, 1981 symposium on surface mining hydrology, sedimentology, and reclamation (Graves, D. H., chairperson), p. 123-128, 2 tables, 6 ref., December 1981. (Rep. No. UKY BU126) *available from*: Univ. Ky., Coll. Eng., Lexington, KY, United States.
- Schuller, Rudolph M. *see also* Gibb, James P.
- Schultze, Hans-Peter. Megapleuron zangerli, a new dipnoan from the Pennsylvanian, Illinois: Fieldiana: Geology, Vol. 33, No. 21, p. 375-396, illus. (incl. 1 table), 29 ref., January 28, 1977. *Megapleuron zangerli*.
- Schwalb, H. R. Paleozoic geology of the New Madrid area; annual progress report; fiscal year 1979: *in* New Madrid seismotectonic study; activities during fiscal year 1979 (Buschbach, T. C.), p. 77-79, illus. (incl. sketch map), March 1980. (Rep. No. NUREG/CR-0977) *available from*: NTIS, Springfield, VA, United States.
- Scott, J. H. *see* Daniels, J. J.
- Sefton, Donna F. *see* Schaeffer, David J.
- Shabica, Charles W. Sedimentary structures from the Carbondale Formation (Middle Pennsylvanian) of northern Illinois: Fieldiana: Geology, Vol. 33, No. 29, 27 p., illus., 25 ref., February 27, 1978.
- Sharma, A. K.; Fehrenbacher, J. B.; and Jones, B. A., Jr. Effect of gypsum, soil disturbance and tile spacing on the amelioration of Huey silt loam, a natric soil in Illinois: Proceedings - Soil Science Society of America, Vol. 38, No. 4, p. 628-632, illus. (incl. 5 tables), 10 ref., August 1974.
- Sherrill, M. G. (investigator). Deep test well [abstr.]: *in* Geological Survey research 1981, Geological Survey Professional Paper, No. 1275, p. 94, 1981 [1982].
- Siefker, Joseph R.; and Catt, Paul E. Gas chromatographic determination of organic compounds in river water: *in* Proceedings of the Indiana Academy of Science (Moulton, B., editor), Proceedings of the Indiana Academy of Science, Vol. 89, p. 133-135, 9 anal., 1 table, 12 ref., 1979 [1980].
- Siegal, Sherman M. Subsurface geology of the upper Tradewater and lower Carbondale groups in South-central Saline County, Illinois: Master's, 1979, Wright State Univ., Dayton, OH.
- Singh, V. P. Comparing urban runoff models: Journal of the Institution of Engineers, India. Environmental Engineering Division, Vol. 61, No. 2, p. 53-59, illus. (incl. 6 tables), 32 ref., 1981.
- Singleton, R. H. Peat in the United States: *in* Proceedings of the 6th international peat congress; The role of peatlands in a world of limited resources; energy, food, fiber and natural areas (Grubich, Donald M., chairperson), Int. Peat Congr., Proc., No. 6,

- p. 96-102, illus. (incl. 8 tables, sketch map), 1980.
- Sipiera, Paul P.; and Leary, Richard L. Illinois meteorites: Earth Science, Vol. 29, No. 5, p. 253-260, illus. (incl. sketch map), 6 ref., October 1976.
- Sipiera, Paul P. *see also* Korbus, Janet M.
- Snarski, R. R.; Fehrenbacher, J. B.; and Jansen, I. J. Physical and chemical characteristics of pre-mine soils and post-mine soil mixtures in Illinois: in Proceedings of the 45th annual meeting, Soil Science Society of America (Stewart, B. A., president), Soil Science Society of America Journal, Vol. 45, No. 1-6, p. 806-812, 5 tables, 16 ref., 1981. Univ. Ill., Dep. Agron.; Contrib.
- Speck, R. C. The influence of certain geologic and geotechnical factors on coal mine floor stability; a case study: in Proceedings of the 1st conference on ground control in mining (Peng, S. S., editor), W. Va. Univ., Morgantown, WV, United States, p. 44-49, illus. (incl. 1 table), 6 ref., July 1981.
- Speth, Janet M. *see* Parmalee, Paul W.
- Spoor, M. F. *see* Hagerty, D. J.
- Springer, James Warren; and Flemal, Ronald C. Paleontological and geological results from two fossil proboscidean finds in northern Illinois: Transactions of the Illinois State Academy of Science, Vol. 74, No. 3-4, p. 87-99, illus. (incl. sketch maps), 74 ref., 1981.
- Stall, John B. Estimating reservoir sedimentation rates in the Midwest: in Proceedings of the Symposium on surface water impoundments (Stefan, H. G., editor), Am. Soc. Civ. Eng., New York, NY, United States, p. 1290-1297, illus. (incl. 2 tables, sketch maps), 7 ref., 1981.
- Stephenson, Richard W.; and Rockaway, John D. Seismic response mapping of Saint Louis County: Univ. Mo., Rolla, MO, United States, 127 p., illus. (incl. 1 table), 92 ref., November 1980.
- Stevens, P. R.; and Debuchananne, G. D. Problems in shallow land disposal of solid low-level radioactive waste in the United States: in Section 13: The contribution of geology towards management of the environment (Jacobson, G., convener), Int. Assoc. Eng. Geol., Bull., No. 14, p. 161-171 (incl. French, English sum.), illus. (incl. 2 tables, sect., geol. sketch maps), 11 ref., December 1976. 25th international geological congress.
- Stevenson, D. L.; Whiting, L. L.; and Cluff, R. M. Geologic structure of the base of the New Albany Shale Group in Illinois: Illinois Petroleum, No. 121, 2 p., struc. contour map, 14 ref., 1981. Reprinted from ISGS Circ. No. 518, the New Albany Shale Group of Illinois, 83 p., 1981.
- Stover, C. W.; Reagon, B. G.; and Algermissen, S. T. Seismicity map of the State of Illinois: U. S. Geol. Surv., Misc. Field Stud. Map, No. MF-1143, 1 sheet, seism. map 1:1,000,000, 1979. Reprint.
- Striegl, R. G. (investigator). Quality of urban storm runoff in Illinois [abstr.]: in Geological Survey research 1981, Geological Survey Professional Paper, No. 1275, p. 115, 1981 [1982].
- Strimple, Harrell L. *see* Frest, T. J.
- Strunk, Kevin L. Relationships between the Roger and Porter cave systems and Glacial Lake Quincy, Indiana, USA [abstr.]: in Proceedings of the Indiana Academy of Science (Moulton, B., editor), Proceedings of the Indiana Academy of Science, Vol. 89, p. 273, 1979 [1980].
- Stucki, J. W. *see* Norman, R. J.
- Sullivan, Dan M.; and Ault, Curtis H. A study of Indiana fault locations, displacements, attitudes and ages within a 200-mile radius of New Madrid, Missouri; annual progress; fiscal year 1979: in New Madrid seismotectonic study; activities during fiscal year 1979 (Buschbach, T. C.), p. 81-86, illus. (incl. sect., sketch maps), 1 ref., March 1980. (Rep. No. NUREG/CR-0977) available from: NTIS, Springfield, VA, United States.
- Sundmacker, Harvey. Controlling sediment by watershed management techniques: in Proceedings of a round table on reclaiming and managing lakes in Illinois (Keasler, Linda, editor), Special Report - Water Resources Center, University of Illinois at Urbana-Champaign, No. 12, p. 77-80, February 1981.
- Swann, D. H. *see* van den Berg, Jacob
- Swingen, Regina Anne. Evaluation of the St. Peter Sandstone and Joachim Dolomite for compressed air energy storage, with emphasis on thermal properties: 154 p., illus. (incl. 30 tables), Master's, 1981, Univ. of Wisconsin, Milwaukee, WI.
- Thompson, C. L. *see* Hatcher, P. G.
- Thompson, Ida; and Johnson, Ralph G. New fossil polychaete from Essex, Illinois: Fieldiana: Geology, Vol. 33, No. 25, 18 p., 1977.
- Treworgy, Colin G. Only minable coal is salable coal: Coal Age, Vol. 87, No. 4, p. 74-75, 77, illus., 1 ref., April 1982.
- Treworgy, Colin G. *see also* Nance, Roger B.
- Treworgy, Janis D. Structural features in Illinois: a compendium: Circular - Illinois

- State Geological Survey, No. 519, 22 p., struc. contour map 1:750,000, 275 ref., 1981.
- Treworgy, Janis D. *see also* Kolata, Dennis R.
- Tripp, Angela M. Lower Mississippian Fort Payne Formation of southern Illinois: Master's, 1981, Northern Illinois Univ., De Kalb, IL.
- Tuchman, Robert J. *see* Hill, James J.
- Twigg, M. E. *see* Fraser, H. L.
- U. S. Army Corps of Engineers, Assistant Secretary of the Army (Civil Works). Locks and dam No. 26, Mississippi River, Alton, Illinois. U. S. Gov. Print. Off., Washington, DC, United States, 723 p., illus. (incl. geol. sketch maps), 1976. Ninety-fourth congress, second session; House document No. 94-584.
- U. S. Geological Survey. Land use and land cover and associated maps for Vincennes, Indiana, Illinois, Kentucky: Open-File Report (United States Geological Survey, 1978), No. 81-0009, 4 sheets, land use maps 1:250,000, 1981. *available from*: U. S. Geol. Surv., East. Mapp. Cent., Reston, VA, United States.
- U. S. Geological Survey. Aeromagnetic map of northwestern Illinois: Open-File Report (United States Geological Survey, 1978), No. 82-0190, 1 sheet, aeromagn. map 1:250,000, 1982. *available from*: U. S. Geol. Surv., Open-File Serv. Sect., West. Distrib. Branch, Denver, CO, United States.
- U. S. Geological Survey. Land use and land cover, 1972-76, St. Louis, Missouri; Illinois: Land Use Land Cover Maps, L-Ser., No. L-0101, 1 sheet, colored land use map 1:250,000, 1982.
- Ullrich, C. R. *see* Hagerty, D. J.
- van den Berg, Jacob; and Elyn, Jaclyn Rendall. Petroleum industry in Illinois, 1980; Part 1, Oil and gas developments; Part 2, Waterflood operations: Illinois Petroleum, No. 123, 134 p., illus. (incl. 14 tables), 1982.
- van den Berg, Jacob; Swann, D. H.; Carpenter, G. L.; *et al.* Developments in East central states in 1967: AAPG Bulletin, Vol. 52, No. 6, p. 965-975, illus. (incl. 8 tables), 1 ref., June 1968.
- Van Den Berg, Jacob *see also* Lindau, Robert D.
- Van Luik, Abraham *see* Harrison, Wyman
- Visocky, A. P.; Wehrmann, H. A.; and Kim, K. W. Assessment of public groundwater supplies in Illinois: Circular - Illinois State Water Survey, No. 144, 74 p., 2 tables, sketch maps, 2 ref., 1980.
- Walker, Robert D. A major water quality problem in Illinois: soil movement from the watershed and channel: *in* Proceedings of a round table on reclaiming and managing lakes in Illinois (Keasler, Linda, editor), Special Report - Water Resources Center, University of Illinois at Urbana-Champaign, No. 12, p. 1-3, February 1981.
- Wallace, Debbie L. Regionalizing water quality: the Province model: Master's, 1980, Northern Illinois Univ., De Kalb, IL.
- Watts, Alice Marie. Glacial legacy: Lapidary Journal, Vol. 35, No. 10, p. 2056-2063, illus., January 1982.
- Weaver, L.; Boes, R.; and Moore, G. An organics detection system for the Ohio River: *in* New developments in river basin management; proceedings of specialised conference (Jenkins, S. H.), Water Science and Technology, Vol. 13, No. 3, p. 227-236, illus. (incl. 2 tables, sketch map), 1981.
- Wehrmann, H. A. *see* Visocky, A. P.
- Welkie, Carol J.; and Meyer, Robert P. Exploration and assessment of offshore sand and gravel, western Lake Michigan: Marine Mining, Vol. 3, No. 3-4, p. 315-378, illus. (incl. 4 tables, sketch maps), 89 ref., 1982.
- Wenzel, Harry G., Jr. *see* Hopkins, Lewis D.
- Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois: Journal of Sedimentary Petrology, Vol. 52, No. 2, p. 353-366, illus. (incl. 1 table, strat. col., sketch maps), 45 ref., June 1982.
- Westphal, J. A. *see* Clemence, S. P.
- Whiting, L. L. *see* Stevenson, D. L.
- Whittecarr, G. Richard; and Davis, Anthony M. Sedimentology and palynology of middle Wisconsinan deposits in the Pecatonica River valley, Wisconsin and Illinois: Quaternary Research (New York), Vol. 17, No. 2, p. 228-240, illus. (incl. 1 table, sketch map), 46 ref., March 1982.
- Wildanger, Edward George. Sinkhole-type subsidence over abandoned coal mines in St. David, Illinois: Master's, 1980, Univ. of Illinois, Urbana, IL.
- Willman, H. B.; and Frye, J. C. Glacial map of Illinois: Ill. State Geol. Surv., Urbana, IL, United States, 1 sheet, geomorphol. map 1:2,534,400, 1970.
- Willman, H. B.; and Frye, J. C. Loess thickness in Illinois: Ill. State Geol. Surv., Urbana, IL, United States, 1 sheet, geomorphol. map 1:2,534,400, 1970.
- Winkle, Candace J. The paleoenvironment of the Cedar Valley Limestone (Middle Devonian) in northwestern Illinois: 61 p., Master's, 1980, Univ. of Wisconsin, Milwaukee, WI.

Woodruff, M. S. see Kessen, K. M.

Woodruff, Michael S. Strontium isotope compositions of mississippi valley-type deposits enclosed in Cambrian, Ordovician and Mississippian host carbonates: 69 p., Master's, 1980, Miami Univ., Oxford, OH.

Young, D. C. see Cronauer, D. C.

Zuehls, E. E.; Ryan, G. L.; Peart, D. B.; *et al.* Hydrology of area 35, Eastern region, Interior coal province, Illinois and Kentucky: Open-File Report (United States Geological Survey, 1978), No. 81-0403, 82 p., 1981. available from: U. S. Geol. Surv., Water Resour. Div., Urbana, IL, United States. Water-resources investigations.

Zuehls, E. E.; and Ryan, G. L. (investigators). Water quality in the coal areas of Illinois [abstr.]: Geological Survey Professional Paper, No. 1275, p. 226, 1981.

INTENTIONAL BLANK PAGE

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

SUBJECT INDEX

- absolute age *see also*
geochronology; isotopes
- absolute age--dates
 - pear: Sedimentology and palynology of middle Wisconsin deposits in the Pecatonica River valley, Wisconsin and Illinois (Whittecarr, G. Richard)
 - sediments: Lead-210 analyses of sediment accumulation rates in five southern Illinois surface mine lakes (Brugam, Richard B.)
 - wood: Illinois State Geological Survey radiocarbon dates V (Coleman, Dennis D.)
 - Illinois State Geological Survey radiocarbon dates VI (Coleman, Dennis D.)
 - Illinois State Geological Survey radiocarbon dates VII (Liu, Chao Li)
- aeromagnetic surveys *see*
magnetic surveys *under*
geophysical surveys
- Agnatha--miscellaneous
 - Pennsylvanian: New agnathous fishes from the Pennsylvanian of Illinois (Bardack, David)
- algal flora--biostratigraphy
 - Devonian: Distribution of Devonian algae, *Foerstia*, in the Appalachian and Illinois basins (Kepferle, R. C.)
- archaeology *see also under*
stratigraphy
- archeology *see* archaeology
under stratigraphy
- areal geology
 - Danville: A guide to the geology of the Danville area (Reinertsen, David L.)
 - Lake County: A guide to the geology of the Zion-Lake Bluff area (Reinertsen, David L.)
 - maps: Geologic map of the Lusk Creek Roadless Area, Pope County, Illinois (Klasner, J. S.)
 - Monroe County: A guide to the geology of the Waterloo-Valmeyer area (Reinertsen, David L.)
 - New Madrid region: New Madrid seismotectonic study; activities during fiscal year 1979 (Buschbach, T. C.)
 - Peoria: Urban geology of America; Peoria, Illinois (Anonymous)
- arsenic--geochemistry
 - soils: Effect of pH on adsorption of arsenic and selenium from landfill leachate by clay minerals (Frost, R. R.)
- Arthropoda--faunal studies
 - Devonian: Early invertebrate terrestrial faunas (Rolfe, W. D. Ian)
- artifacts *see* archaeology
under stratigraphy
- associations *see also* museums;
survey organizations
- automatic data
 - processing--economic geology
 - natural gas: Analyses of natural gas in Illinois (Meents, Wayne F.)
- automatic data
 - processing--engineering geology
 - geologic hazards: Seismic response mapping of Saint Louis County (Stephenson, Richard W.)
- automatic data
 - processing--hydrogeology
 - hydrology: A comprehensive inventory of Illinois stream characteristics (Frank, Thomas D.)
 - Assessment and classification of selected Illinois lakes through the application of space technology (Schaeffer, David J.)
- Aves--Neornithes
 - Quaternary: A prehistoric archaeological record of the Pomarine Jaeger, *Stercorarius Pomarinus* (Temminck), from central Illinois (Parmalee, Paul W.)
- beryllium--abundance
 - breccia pipes: Bertrandite at Hicks Dome, Hardin County, Illinois (Baxter, James W.)
- beryllium--geochemistry
 - soils: Limestone liner for landfill leachates containing beryllium, cadmium, iron, nickel, and zinc (Artiola, J.)
- birds *see also* Aves
- boreholes *see under*
interpretation *under*
well-logging
- burrows *see* ichnofossils
- cadmium--geochemistry
 - soils: Limestone liner for landfill leachates containing beryllium, cadmium, iron, nickel, and zinc (Artiola, J.)
- Canada *see also* Great Lakes;
Great Lakes region
- carbon--abundance
 - sediments: Chemical characteristics of lake sediments (Barcelona, Michael J.)
- carbonate rocks *see under*
sedimentary rocks
- carbonates *see under* minerals
- cartography *see under* maps
- catalogs--economic geology
 - natural gas: Analyses of natural gas in Illinois (Meents, Wayne F.)
- catalogs--structural geology
 - tectonics: Structural features in Illinois; a compendium (Treworgy, Janis D.)
- caves *see under* solution
features *under* geomorphology
- cement materials *see*
construction materials *under*
economic geology

- chemical analysis *see also*
electron microscopy;
spectroscopy
- clastic rocks *see under*
sedimentary rocks
- clastic sediments *see under*
sediments
- clay mineralogy--areal studies
Attenuation of
polybrominated biphenyls
and hexachlorobenzene by
earth materials (Griffin,
R. A.)
-- The Dwight mineralogical
zone of the Yorkville Till
Member, northeastern
Illinois (Killey, Myrna
M.)
- clays *see also under* economic
geology; *see also under*
economic geology *under*
Midwest
- climate, ancient *see*
paleoclimatology
- coal *see also under* economic
geology; *see also under*
economic geology *under*
Utah; *see also under* organic
residues *under* sedimentary
rocks
- coal--production
production control: Effects
of moisture on strata
control in coal mines
(Chugh, Yoginder P.)
- concretions *see under*
secondary structures *under*
sedimentary structures
- congresses *see* symposia
- conservation *see also under*
soils
- construction materials *see*
also under economic geology
- Crinoidea *see under*
Echinodermata
- crystal chemistry *see also*
crystal structure; minerals
- crystal growth *see also*
crystal structure; minerals
- crystal structure *see also*
minerals
- crystal structure--ring
silicates
Bertrandite: Bertrandite at
Hicks Dome, Hardin County,
Illinois (Baxter, James
W.)
- crystallography *see also*
mineralogy
- dams *see also under*
engineering geology
- deformation--experimental
studies
yield strength:
Thermomechanical
properties of Galesville
Sandstone (Blacic, J. D.)
- deposition *see under*
sedimentation
- deposition of ores *see* mineral
deposits, genesis
- deuterium *see also* hydrogen
- deuterium--isotopes
D/H: A stable-isotopic view
of the Cambro-Ordovician
aquifer system in northern
Illinois (Grundl, Timothy
J.)
- Devonian *see also under*
stratigraphy; *see also under*
stratigraphy *under* Kentucky
- diagenesis *see also*
sedimentation
- diagenesis--processes
pressure: Experimental
development of porosity in
carbonate rocks *under*
simulated deep burial
conditions; 1, Oomoldic
porosity in Mississippian
oolitic limestone (Rich,
D. W.)
- diagenesis--sedimentation
processes: Lower
Mississippian Fort Payne
Formation of southern
Illinois (Tripp, Angela
M.)
- earthquakes *see under* geologic
hazards; seismology; *see also*
engineering geology;
seismology; *see also under*
engineering geology *under*
Midwest; *see also under*
seismology *under* Mississippi
Valley
- earthquakes--effects
occurrence: Earthquakes,
May-June 1981 (Person,
Waverly J.)
- Eastern Hemisphere *see also*
Europe
- Echinodermata--Crinoidea
Silurian: New Manicrinidae
(Crinoidea, Inadunata,
Dendrocrinina) from the
Silurian of Illinois and
Indiana (Frest, T. J.)
- Echinodermata--Stylophora
Ordovician: Anomalocystitid
mitrates
(Stylophora-Echinodermata)
from the Champlainian
(Middle Ordovician)
Guttenberg Formation of
the Upper Mississippi
Valley region (Kolata,
Dennis R.)
- echinoderms *see also*
Echinodermata
- economic geology
clays: Clay resources of
the Midwest states
(Murray, H. H.)
coal: Coalification of
tissues in a coal ball
from the Illinois basin
(Hatcher, P. G.)
- Faults and their effect
on coal mining in Illinois
(Nelson, W. John)
- Geology and geochemistry
of sphalerite in coal
(Cobb, James Collins)
- Liquefaction of Kentucky
and Illinois coals in a
batch microreactor
(Cronauer, D. C.)
- Only minable coal is
salable coal (Treworgy,
Colin G.)
- Sohio in new U.S. Steel
coal deal (Anonymous)
- Strippable coal
resources of Illinois;
Part 7, Vermilion and
Edgar counties (Jacobson,
Russell J.)
- Strippable coal
resources of Illinois;
Part 8, Central and
southeastern counties
(Nance, Roger B.)
- The future competitive
position of coal from the
Illinois Basin (Bhagwat,
Subhash)
- construction materials:
Glacial legacy (Watts,
Alice Marie)
- energy sources: Permit
requirements for energy
and other natural
resources for the State of
Illinois (Indiana
University, School of
Public and Environmental
Affairs)
- The Cottage Grove fault
system in southern
Illinois (Nelson, W. John)
- fuel resources:
Developments in East
central states in 1967
(van den Berg, Jacob)
- East-Central states
(Lindau, Robert O.)
- Petroleum industry in
Illinois, 1980; Part 1,
Oil and gas developments;
Part 2, Waterflood
operations (van den Berg,
Jacob)
- Regional setting of the
Cambro-Ordovician in the
Illinois Basin (Avila,
John)
- gravel deposits:
Application of
sedimentology to
development of sand and
gravel resources in
McHenry and Kane counties,
northeastern Illinois
(Cobb, James C.)
- Exploration and
assessment of offshore
sand and gravel, western

- Lake Michigan (Welkie, Carol J.)
- lead-zinc deposits:** Gangue mineral /87_Sr//86_Sr ratios and the origin of mississippi valley-type mineralization (Kessen, K. M.)
- Strontium isotope compositions of mississippi valley-type deposits enclosed in Cambrian, Ordovician and Mississippian host carbonates (Woodruff, Michael S.)
- limestone deposits:** High-calcium, high-reflectance limestone resources of Illinois (Goodwin, Jonathan H.)
- mineral resources:** Illinois Institute of Natural Resources project list, January 1, 1981 (Illinois Institute of Natural Resources, Environmental Management Division)
- The mineral industry of Illinois (Hill, James J.)
- natural gas:** Analyses of natural gas in Illinois (Meents, Wayne F.)
- Natural gas potential of the New Albany Shale Group (Devonian-Mississippian) in southeastern Illinois (Cluff, Robert M.)
- nonmetal deposits:** A guide to the geology of the Danville area (Reinertsen, David L.)
- A guide to the geology of the Waterloo-Valmeyer area (Reinertsen, David L.)
- peat:** Peat in the United States (Singleton, R. H.)
- petroleum:** Geologic structure of the base of the New Albany Shale Group in Illinois (Stevenson, D. L.)
- sands:** Application of sedimentology to development of sand and gravel resources in McHenry and Kane counties, northeastern Illinois (Cobb, James C.)
- Exploration and assessment of offshore sand and gravel, western Lake Michigan (Welkie, Carol J.)
- uranium ores:** Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project (Geodata International)
- Aerial radiometric and magnetic survey, Quincy National Topographic Map, Illinois/Missouri; New York-Illinois Project (Geodata International)
- Aerial radiometric and magnetic survey, St. Louis National Topographic Map, Illinois/Missouri; New York-Illinois Project (Geodata International)
- Airborne gamma-ray spectrometer and magnetometer survey; Peoria, Decatur, Belleville quadrangles (IL.); final report (High Life Helicopters)
- Data report; Illinois, Indiana, Kentucky, Tennessee, and Ohio; hydrogeochemical and stream sediment reconnaissance (Sargent, Kenneth A.)
- water resources:** Assessment of public groundwater supplies in Illinois (Visocky, A. P.)
- Chicago region's valuable water resources; discussion (Moore, Herbert)
- Ground-water resources of northern Vermilion County, Illinois (Kempston, John P.)
- Illinois (Anonymous)
- Regionalizing water quality; the Province model (Wallace, Debbie L.)
- The Chicago region's valuable water resources; closure (Keifer, Clint J.)
- The national ground water picture (Eisel, Leo M.)
- education--environmental geology.**
- objectives:** The effect of the National Environmental Education Act on secondary and elementary schools in two mid-western states (Grant, Ulyses Simpson, III)
- electrical surveys see under** geophysical surveys
- electron microscopy see also** spectroscopy
- electron microscopy--methods**
- transmission method:** Analytical transmission electron microscopy in minerals processing (Fraser, H. L.)
- energy sources see also under** economic geology
- engineering geology see also** deformation; environmental geology; ground water; mining geology; rock mechanics; soil mechanics
- engineering geology**
- dams:** Explorations for the pile founded Lock & Dam No. 26 replacement (Hempfen, Gregory L.)
- earthquakes:** On the use of the frequency-magnitude relation in earthquake risk assessment (Johnston, Arch C.)
- geologic hazards:** Seismic response mapping of Saint Louis County (Stephenson, Richard W.)
- land subsidence:** Mine subsidence in Illinois; facts for the homeowner considering insurance (DuMontelle, Paul B.)
- Sinkhole-type subsidence over abandoned coal mines in St. David, Illinois (Wildanger, Edward George)
- The influence of certain geologic and geotechnical factors on coal mine floor stability; a case study (Speck, R. C.)
- mining geology:** Geologic investigation of roof and floor strata; longwall demonstration, Old Ben Mine No. 24; final technical report; Part 1 (Bauer, Robert A.)
- reservoirs:** Prevention of shoreline erosion by physical and structural methods (Niccum, Dwight A.)
- rock mechanics:** Caissons socketed in sound mica schist; discussions and closure (Bushell, Ted D.)
- Moisture absorption and swelling behavior of the Dykersburg Shale (Chugh, Y. P.)
- Thermomechanical properties of Galesville Sandstone (Blacic, J. D.)
- slope stability:** Model studies of induced slope failures for strip mine reclamation (Clemence, S. P.)
- soil mechanics:** Preconsolidation pressure predicted using S/u_{-} rho ratio (Anderson, T. C.)
- tunnels:** Geotechnical investigation for the Des Plaines River system

- tunnels and shafts
(Grimes, Walter W.)
- underground installations:*
Evaluation of the St. Peter Sandstone and Joachim Dolomite for compressed air energy storage, with emphasis on thermal properties
(Swingen, Regina Anne)
- Swelling behavior of Illinois coal shales
(Huang, Scott Lin)
- waste disposal:* Argonne National Laboratory site, Illinois (Dlimpio, J. C.)
- Chicago region's valuable water resources; discussion (Moore, Herbert)
- Evaluation of laboratory-produced leachates used for environmental assessment of coal refuse (Schuller, Rudolph M.)
- Evaluation of trench subsidence and stabilization at Sheffield low-level radioactive waste disposal facility, Sheffield, Illinois; final report; October 15, 1980 - March 30, 1981 (Kahle, R.)
- Problems in shallow land disposal of solid low-level radioactive waste in the United States (Stevens, P. R.)
- Radioactive waste-burial sites in Illinois (Dlimpio, J. C.)
- Registry of wells for use in underground injection of wastewater, 1972-1975; a summary of operational characteristics of injection wells in the Ohio Valley region (Ohio River Valley Sanitation Commission)
- Shallow land burial of low-level radioactive wastes in the USA (Robertson, John B.)
- Sheffield, Illinois (Foster, James B.)
- waterways:* Stage-discharge relations at dams on the Illinois and Des Plaines rivers in Illinois (Mades, D. M.)
- The response of the Middle Mississippi to human presence; 1821-1974 (Clemence, S. P.)
- environmental geology** see also engineering geology

- environmental geology**
- cartography:*
Three-dimensional geologic mapping for environmental studies in Illinois
(Kempton, John P.)
- education:* The effect of the National Environmental Education Act on secondary and elementary schools in two mid-western states
(Grant, Ulyses Simpson, III)
- geologic hazards:* Mine subsidence in Illinois; facts for the homeowner considering insurance
(DuMontelle, Paul B.)
- impact statements:* Locks and dam No. 26, Mississippi River, Alton, Ill. (U. S. Army Corps of Engineers, Assistant Secretary of the Army (Civil Works))
- The Kankakee River yesterday and today (Ivens, J. Loreena)
- land use:* Geophysical investigation of archeological sites
(Leith, C. J.)
- Land use and land cover and associated maps for Vincennes, Indiana, Illinois, Kentucky (U. S. Geological Survey)
- Land use and land cover, 1972-76, St. Louis, Missouri; Illinois (U. S. Geological Survey)
- Permit requirements for energy and other natural resources for the State of Illinois (Indiana University, School of Public and Environmental Affairs)
- Sediment transport and water quality during urban development in Illinois (Anonymous)
- Soil variability on surface-mined and undisturbed land in southern Illinois (Indorante, S. J.)
- maps:* Land use and land cover and associated maps for Vincennes, Indiana, Illinois, Kentucky (U. S. Geological Survey)
- Land use and land cover, 1972-76, St. Louis, Missouri; Illinois (U. S. Geological Survey)
- pollution:* An organics detection system for the Ohio River (Weaver, L.)

- Attenuation of polybrominated biphenyls and hexachlorobenzene by earth materials (Griffin, R. A.)
- Characterization of a contaminant plume in ground water, Meredosia, Illinois (Naymik, Thomas G.)
- Geochemistry of drainage from a coal refuse pile, Pyramid Mine, Perry County, Illinois (Gruner, Dennis B.)
- Governmental responses to the problem of sedimentation (Gross, David L.)
- Ground-water flow effects from strip mining in Illinois (Galloway, D. L.)
- Illinois groundwater problems and needs (Moore, J. S.)
- Major problems of lake water quality in Illinois (Meyer, Michael)
- Radioactive waste-burial sites in Illinois (Dlimpio, J. C.)
- Water quality in the coal areas of Illinois (Zuehlis, E. E.)
- 226Ra and 228Ra in ground water of the Cambrian-Ordovician aquifer system in northern Illinois (Gilkeson, Robert H.)
- reclamation:* An historical review of the Kankakee River basin development (Bhowmik, Nani G.)
- Problems in reclaiming farmland in Illinois (Grandt, Alten F.)
- Suitability of dredged material for reclamation of surface-mined land; the Ottawa, Illinois, Demonstration Project (Harrison, Wyman)
- Surface mining and reclamation; initial changes in soil character (Indorante, Sam J.)
- waste disposal:*
Sludge-storage basins recharge ground water in Illinois (Patterson, G. L.)
- environmental geology--maps**
- cartography:*
Three-dimensional geologic mapping for environmental studies in Illinois
(Kempton, John P.)

eolian features see under
geomorphology

Europe--paleontology

Invertebrata: Early
invertebrate terrestrial
faunas (Rolfe, W. D. Ian)

experimental studies see under
deformation

faulting see faults

faults see also folds

faults--displacements

interpretation: Structural
framework of the
Mississippi Embayment of
southern Illinois; annual
progress report; fiscal
year 1979 (Kolata, Dennis
R.)

normal faults: A study of
Indiana fault locations,
displacements, attitudes
and ages within a 200-mile
radius of New Madrid,
Missouri; annual progress;
fiscal year 1979
(Sullivan, Dan M.)

strike-slip faults: The
Cottage Grove fault system
in southern Illinois
(Nelson, W. John)

ferns see also pteridophytes

fish see also Pisces

fluid inclusions--geologic thermometry

interpretation: Geology and
geochemistry of sphalerite
in coal (Cobb, James
Collins)

ore-forming fluids:
Strontium isotope
compositions of
Mississippi valley-type
deposits enclosed in
Cambrian, Ordovician and
Mississippian host
carbonates (Woodruff,
Michael S.)

fluorine--geochemistry

soils: Fluorine
distribution with depth in
relation to profile
development in Illinois
(Omueti, J. A. I.)

-- Regional distribution of
fluorine in Illinois soils
(Omueti, J. A. I.)

fluvial features see under
geomorphology

folding see folds

folds see also faults

folds--style

anticlines: The Cottage
Grove fault system in
southern Illinois (Nelson,
W. John)

troughs: Structural
framework of the
Mississippi Embayment of
southern Illinois (Kolata,
Dennis R.)

foliation see also folds

foraminifera--faunal studies

Mississippian: Early
Mississippian
(Kinderhookian) smaller
foraminifera from the
McCraney Limestone of
Missouri and Illinois
(Conkin, James E.)

foraminifers see also

foraminifera

foundations see also rock
mechanics; soil mechanics

fuel resources see also under
economic geology; see also
under economic geology under
Midwest

gas inclusions see fluid
inclusions

genesis of ore deposits see
mineral deposits, genesis

geochemistry

isotopes: 226Ra and 228Ra
in ground water of the
Cambrian-Ordovician
aquifer system in northern
Illinois (Gilkeson, Robert
H.)

organic materials:

Attenuation of
polybrominated biphenyls
and hexachlorobenzene by
earth materials (Griffin,
R. A.)

surface water: Gas
chromatographic
determination of organic
compounds in river water
(Siefker, Joseph R.)

trace elements: Leaching of
metals and trace elements
from sulfide-bearing coal
waste in southwestern
Illinois (Krothe, Noel C.)

geochemistry--processes

oxidation: Leaching of
metals and trace elements
from sulfide-bearing coal
waste in southwestern
Illinois (Krothe, Noel C.)

geochemistry--surveys

Data report: Illinois,
Indiana, Kentucky,
Tennessee, and Ohio;
hydrogeochemical and
stream sediment
reconnaissance (Sargent,
Kenneth A.)

geochronology see also

absolute age

geochronology

Holocene: Lead-210 analyses
of sediment accumulation
rates in five southern
Illinois surface mine
lakes (Brugam, Richard B.)

Quaternary: Illinois State
Geological Survey
radiocarbon dates V
(Coleman, Dennis O.)

-- Illinois State
Geological Survey
radiocarbon dates VI
(Coleman, Dennis D.)

-- Illinois State
Geological Survey
radiocarbon dates VII
(Liu, Chao Li)

geologic hazards see also
under engineering geology;
environmental geology; see
also under engineering
geology under automatic data
processing

geologic hazards--controls
mines: Effects of moisture
on strata control in coal
mines (Chugh, Yoginder P.)
geologic hazards--earthquakes
effects: Earthquakes,
May-June 1981 (Person,
Waverly J.)

geologic thermometry see under
fluid inclusions

geologic time see absolute
age; geochronology

geomorphology see also glacial
geology

geomorphology

fluvial features: Detecting
buried river channels by
satellite (Rabchevsky,
George A.)

glacial geology: Ancient
dust storms in Illinois
(Killey, Myrna M.)

-- Comparison of glacial
events in Canterbury, New
Zealand, and Illinois,
U.S.A., during the last
75,000 years (Runge, E. C.
A.)

-- Glacial map of Illinois
(Willman, H. B.)

-- Late Wisconsinan
proglacial sedimentation
along the West Chicago
Moraine in northeastern
Illinois (Fraser, Gordon
S.)

maps: Glacial map of
Illinois (Willman, H. B.)

-- Loess thickness in
Illinois (Willman, H. B.)

-- Physiographic divisions
of Illinois (Anonymous)

solution features:
Relationships between the
Roger and Porter cave
systems and Glacial Lake
Quincy, Indiana, USA
(Strunk, Kevin L.)

geomorphology--eolian features

loess: Loess thickness in
Illinois (Willman, H. B.)

geomorphology--fluvial features

buried channels: Detecting
buried river channels by
satellite (Rabchevsky,

geomorphology/ground water

- George A.)
stream disequilibrium: The extent of stream disequilibrium in northern Illinois (Goldman, Barbara Ellen)
- geomorphology--landform description**
landscapes: Soilscape analysis in terms of pedogeomorphic fabric; an explanatory study (Habermann, Gail M.)
physiographic provinces: Physiographic divisions of Illinois (Anonymous)
- geomorphology--landform evolution**
indicators: A suggested technique for measuring landscape changes through archaeology (Neitzel, Robert S.)
- geomorphology--solution features**
caves: Relationships between the Roger and Porter cave systems and Glacial Lake Quincy, Indiana, USA (Strunk, Kevin L.)
sinkholes: Sinkhole-type subsidence over abandoned coal mines in St. David, Illinois (Wildanger, Edward George)
- geophysical surveys see under** mineral exploration; see electrical surveys *under* geophysical surveys; see magnetic surveys *under* geophysical surveys; see radioactivity surveys *under* geophysical surveys; see surveys *under* soils
- geophysical surveys**
electrical surveys: Geophysical investigation of archeological sites (Leith, C. J.)
-- Ground-water resources of northern Vermilion County, Illinois (Kempton, John P.)
magnetic surveys: Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project (Geodata International)
-- Aeromagnetic map of northwestern Illinois (U. S. Geological Survey)
- maps*: Aerial radiometric and magnetic survey, Quincy National Topographic Map, Illinois/Missouri; New York-Illinois Project (Geodata International)
-- Aerial radiometric and magnetic survey, St. Louis National Topographic Map, Illinois/Missouri; New York-Illinois Project (Geodata International)
-- Aeromagnetic map of northwestern Illinois (U. S. Geological Survey)
- radioactivity surveys*: Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project (Geodata International)
- remote sensing*: A comprehensive inventory of Illinois stream characteristics (Frank, Thomas D.)
-- Assessment and classification of selected Illinois lakes through the application of space technology (Schaeffer, David J.)
- well-logging*: Assessment of a regional aquifer in central Illinois (Burris, Charles B.)
-- Geophysical well logs for drill hole UPH-3, Stephenson County, Illinois (Daniels, J. J.)
-- The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois (Lineback, Jerry A.)
- geophysics see also** deformation; engineering geology
- geotechnics see engineering geology**
- glacial geology see also** geomorphology
- glacial geology--glaciation deposition**: Comparison of glacial events in Canterbury, New Zealand, and Illinois, U.S.A., during the last 75,000 years (Runge, E. C. A.)
-- Late Wisconsinan proglacial sedimentation along the West Chicago Moraine in northeastern Illinois (Fraser, Gordon S.)
-- Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois (Moore, David Warren)
- dust storms*: Ancient dust storms in Illinois (Killey, Myrna M.)
- glaciation see under** glacial geology
- gravel deposits see also under** economic geology; see also *under* economic geology *under* Great Lakes
- Great Lakes--economic geology gravel deposits**: Exploration and assessment of offshore sand and gravel, western Lake Michigan (Welkie, Carol J.)
sands: Exploration and assessment of offshore sand and gravel, western Lake Michigan (Welkie, Carol J.)
- Great Lakes--environmental geology**
pollution: The Lake Michigan pollution case; a review and commentary on the limnological and other issues (Mortimer, Clifford H.)
- Great Lakes region--stratigraphy**
Pleistocene: Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois (Moore, David Warren)
- ground water see also** hydrogeology; hydrology
- ground water--surveys**
A stable-isotopic view of the Cambro-Ordovician aquifer system in northern Illinois (Grundl, Timothy J.)
-- Assessment of a regional aquifer in central Illinois (Burris, Charles B.)
-- Assessment of public groundwater supplies in Illinois (Visocky, A. P.)
-- Characterization of a contaminant plume in ground water, Meredosia, Illinois (Naymik, Thomas G.)
-- Data report; Illinois, Indiana, Kentucky, Tennessee, and Ohio; hydrogeochemical and stream sediment reconnaissance (Sargent, Kenneth A.)
-- Deep test well (Sherrill, M. G.)
-- Ground-water flow effects from strip mining in Illinois (Galloway, D. L.)
-- Ground-water resources of northern Vermilion

County, Illinois (Kempton, John P.)

- Hydrogeology of surface coal mines in Illinois (Lindorff, David E.)
- Illinois groundwater problems and needs (Moore, J. S.)
- Large yields from glacial drift and bedrock formations (Lapham, W. W.)
- Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois (Krothe, Noel C.)
- Radioactive waste-burial sites in Illinois (Olimpio, J. C.)
- Sludge-storage basins recharge ground water in Illinois (Patterson, G. L.)
- The national ground water picture (Eisel, Leo M.)
- Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois (Sasman, Robert T.)
- 226Ra and 228Ra in ground water of the Cambrian-Ordovician aquifer system in northern Illinois (Gilkeson, Robert H.)

gymnosperm flora *see also* gymnosperms

gymnosperms--floral studies
Pennsylvanian: A record of life in rock (Korbus, Janet M.)

gymnosperms--fossilization
morphology: Permineralized *Alethopteris* from the Upper Pennsylvanian of Ohio and Illinois (Mickle, James E.)

gymnosperms--paleoecology
Pennsylvanian: Paleoecology of Middle Pennsylvanian age coal swamps in southern Illinois; Herrin Coal Member at Sahara Mine No. 6 (Phillips, Tom L.)

Holocene *see also under* geochronology

hydrocarbons *see under* organic materials

hydrogen *see also* deuterium

hydrogen--isotopes

D/H: A stable-isotopic view of the Cambro-Ordovician aquifer system in northern Illinois (Grundl, Timothy J.)

hydrogeology *see also* ground water; hydrology

hydrogeology

ground water: A

- stable-isotopic view of the Cambro-Ordovician aquifer system in northern Illinois (Grundl, Timothy J.)
- Assessment of a regional aquifer in central Illinois (Burris, Charles B.)
- Assessment of public groundwater supplies in Illinois (Visocky, A. P.)
- Deep test well (Sherrill, M. G.)
- Ground-water resources of northern Vermilion County, Illinois (Kempton, John P.)
- Hydrogeology of surface coal mines in Illinois (Lindorff, David E.)
- Illinois groundwater problems and needs (Moore, J. S.)
- Large yields from glacial drift and bedrock formations (Lapham, W. W.)
- Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois (Krothe, Noel C.)
- Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois (Sasman, Robert T.)
- 226Ra and 228Ra in ground water of the Cambrian-Ordovician aquifer system in northern Illinois (Gilkeson, Robert H.)

hydrology: A major water quality problem in Illinois; soil movement from the watershed and channel (Walker, Robert D.)

- A technique for estimating time of concentration and storage coefficient values for Illinois streams (Graf, J. B.)
- Assessment and classification of selected Illinois lakes through the application of space technology (Schaeffer, David J.)
- Chemical characteristics of lake sediments (Barcelona, Michael J.)
- Comparing urban runoff models (Singh, V. P.)

- Hydraulics of flow in the Kaskaskia River, Illinois (Bhowmik, Nani G.)
- Hydrology of area 35, Eastern region, Interior coal province, Illinois and Kentucky (Zuehlis, E. E.)
- Index of surface-water records to September 30, 1970; Part 3, Ohio River basin (Anonymous)
- Index of surface-water records to September 30, 1970; Part 5, Hudson Bay and upper Mississippi River basins (Anonymous)
- Longitudinal stream-dispersion measurements (Graf, J. B.)
- Major problems of lake water quality in Illinois (Meyer, Michael)
- Procedures for the collection of representative water quality data from monitoring wells (Gibb, James P.)
- Quality of urban storm runoff in Illinois (Striegl, R. G.)
- Sediment analyses for urbanizing watersheds (Dyhouse, Gary R.)
- Sedimentation ponds and their impact on water quality (Bucek, Milena F.)
- Surface-mine hydrology, Illinois (Brabets, T. P.)
- The Chicago region's valuable water resources; closure (Keifer, Clint J.)
- The extent of stream disequilibrium in northern Illinois (Goldman, Barbara Ellen)
- The Kankakee River yesterday and today (Ivens, J. Loreena)
- The Lake Michigan pollution case; a review and commentary on the limnological and other issues (Mortimer, Clifford H.)

hydrology *see also* ground water; hydrogeology

hydrology--rivers and streams
floodplains: Analyzing floodplain policies using an interdependent land use allocation model (Hopkins, Lewis O.)

hydrology--surveys

A comprehensive inventory of Illinois stream characteristics (Frank, Thomas O.)

- A major water quality problem in Illinois; soil movement from the watershed and channel (Walker, Robert D.)
- A technique for estimating time of concentration and storage coefficient values for Illinois streams (Graf, J. B.)
- Assessment and classification of selected Illinois lakes through the application of space technology (Schaeffer, David J.)
- Chemical characteristics of lake sediments (Barcelona, Michael J.)
- Comparing urban runoff models (Singh, V. P.)
- Hydrology of area 35, Eastern region, Interior coal province, Illinois and Kentucky (Zuehls, E. E.)
- Longitudinal stream-dispersion measurements (Graf, J. B.)
- Major problems of lake water quality in Illinois (Meyer, Michael)
- Procedures for the collection of representative water quality data from monitoring wells (Gibb, James P.)
- Quality of urban storm runoff in Illinois (Striegl, R. G.)
- Regionalizing water quality: the Province model (Wallace, Debbie L.)
- Sediment analyses for urbanizing watersheds (Dyhouse, Gary R.)
- Sediment transport and water quality during urban development in Illinois (Anonymous)
- Sedimentation ponds and their impact on water quality (Bucek, Milena F.)
- Surface-mine hydrology, Illinois (Brabets, T. P.)
- The Chicago region's valuable water resources: closure (Keifer, Clint J.)
- The extent of stream disequilibrium in northern Illinois (Goldman, Barbara Ellen)
- Water quality in the coal areas of Illinois (Zuehls, E. E.)
- Hudson Bay:* Index of surface-water records to September 30, 1970; Part

- 5, Hudson Bay and upper Mississippi River basins (Anonymous)
- Illinois River:* Stage-discharge relations at dams on the Illinois and Des Plaines rivers in Illinois (Mades, D. M.)
- Kankakee River:* The Kankakee River yesterday and today (Ivens, J. Loreena)
- Kaskaskia River:* Hydraulics of flow in the Kaskaskia River, Illinois (Bhowmik, Nani G.)
- Lake Michigan:* The Lake Michigan pollution case; a review and commentary on the limnological and other issues (Mortimer, Clifford H.)
- Midwest:* Effects of wetland drainage on surface runoff (Larson, Curtis L.)
- Estimating reservoir sedimentation rates in the Midwest (Stall, John B.)
- Mississippi River:* Index of surface-water records to September 30, 1970; Part 5, Hudson Bay and upper Mississippi River basins (Anonymous)
- Seasonal relations between streamflow and suspended-sediment discharge (Lazaro, T. R.)
- Sediment-budget study for the upper Mississippi River, GREAT-II reach (Nakato, Tatsuaki)
- Ohio River:* Index of surface-water records to September 30, 1970; Part 3, Ohio River basin (Anonymous)
- ice ages* see glacial geology
- ichnofossils--occurrence*
 - Devonian:* Early invertebrate terrestrial faunas (Rolfe, W. D. Ian)
- igneous rocks* see also fluid inclusions; intrusions
- impact statements* see also under environmental geology
- inclusions* see also fluid inclusions
- industrial minerals* see also under economic geology under Midwest
- intrusions--pipes*
 - breccia pipes:* Bertrandite at Hicks Dome, Hardin County, Illinois (Baxter, James W.)
- Invertebrata* see also Arthropoda; Echinodermata; foraminifera; ichnofossils; worms

- invertebrates--biostratigraphy*
 - Devonian:*
 - Devonian-Mississippian biostratigraphy of northeastern Missouri and western Illinois (Collinson, Charles)
 - Megafossil zonation of the Lingle and St. Laurent limestones (Middle Devonian) of southern Illinois and southeastern Missouri (Fraunfelter, George H.)
 - Mississippian:*
 - Devonian-Mississippian biostratigraphy of northeastern Missouri and western Illinois (Collinson, Charles)
- iron--geochemistry*
 - soils:* Limestone liner for landfill leachates containing beryllium, cadmium, iron, nickel, and zinc (Artiola, J.)
- isotope dating* see absolute age
- isotopes* see also absolute age; geochronology
- isotopes--radium*
 - Ra-226:* 226Ra and 228Ra in ground water of the Cambrian-Ordovician aquifer system in northern Illinois (Gilkeson, Robert H.)
- isotopes--strontium*
 - Sr-87/Sr-86:* Gangue mineral /87Sr//86Sr ratios and the origin of mississippi valley-type mineralization (Kessen, K. M.)
 - Strontium isotope compositions of mississippi valley-type deposits enclosed in Cambrian, Ordovician and Mississippian host carbonates (Woodruff, Michael S.)
- isotopes--tracers*
 - stable isotopes:* A stable-isotopic view of the Cambro-Ordovician aquifer system in northern Illinois (Grundl, Timothy J.)
- Kentucky--stratigraphy*
 - Devonian:* Distribution of Devonian algae, Foerstia, in the Appalachian and Illinois basins (Kepferle, R. C.)
- land use* see also under environmental geology
- land use--management*
 - floodplains:* Analyzing floodplain policies using an interdependent land use

- allocation model (Hopkins, Lewis D.)
- landform description *see under* geomorphology
- landform evolution *see under* geomorphology
- limestone *see also under* carbonate rocks *under* sedimentary rocks
- limestone deposits *see also under* economic geology
- liquid inclusions *see* fluid inclusions
- loess *see under* eolian features *under* geomorphology
- magma *see also* intrusions
- magnesium--geochemistry soils: Relation of nonexchangeable potassium and magnesium to development in some midwestern soils (Kovar, J. A.)
- magnetic surveys *see under* geophysical surveys
- magnetism of rocks and minerals *see* paleomagnetism
- Mammalia--Proboscidea Pleistocene: Paleontological and geological results from two fossil proboscidean finds in northern Illinois (Springer, James Warren)
- maps *see also under* areal geology; environmental geology; geomorphology; geophysical surveys; seismology; soils; structural geology
- maps--cartography environmental geology: Three-dimensional geologic mapping for environmental studies in Illinois (Kempton, John P.)
- mathematical geology *see also* automatic data processing
- meetings *see* symposia
- meteor craters *see also* meteorites
- meteorites--occurrence Illinois meteorites (Sipiera, Paul P.)
- methods *see under* electron microscopy; spectroscopy; well-logging; *see under* production *under* mineral resources
- Midwest--economic geology clays: Clay resources of the Midwest states (Murray, H. H.)
- fuel resources: East-Central states (Lindau, Robert D.)
- industrial minerals: High-calcium, high-reflectance limestone resources of Illinois (Goodwin, Jonathan H.)
- Midwest--engineering geology earthquakes: Zonation of central U.S. earthquake sources (Hempen, G. L.)
- reservoirs: Estimating reservoir sedimentation rates in the Midwest (Stall, John B.)
- waterways: Bank failure and erosion of the Ohio River (Hagerty, D. J.)
- Midwest--environmental geology education: The effect of the National Environmental Education Act on secondary and elementary schools in two mid-western states (Grant, Ulyses Simpson, III)
- Midwest--hydrogeology hydrology: Effects of wetland drainage on surface runoff (Larson, Curtis L.)
- Estimating reservoir sedimentation rates in the Midwest (Stall, John B.)
- Index of surface-water records to September 30, 1970; Part 5, Hudson Bay and upper Mississippi River basins (Anonymous)
- Sediment-budget study for the upper Mississippi River, GREAT-II reach (Nakato, Tatsuki)
- Midwest--stratigraphy Mississippian: The Burlington Shelf (Mississippian, North-central United States) (Lane, H. Richard)
- paleomagnetism: Paleomagnetism of the Late Ordovician Neda iron ore from Wisconsin, Iowa and Illinois (Kean, William F.)
- mineral deposits, genesis--lead-zinc deposits ore-forming fluids: Gangue mineral /87_Sr//86_Sr ratios and the origin of mississippi valley-type mineralization (Kessen, K. M.)
- mineral exploration--geochemical methods uranium ores: Data report; Illinois, Indiana, Kentucky, Tennessee, and Ohio; hydrogeochemical and stream sediment reconnaissance (Sargent, Kenneth A.)
- mineral exploration--geophysical surveys uranium ores: Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project (Geodata International)
- Aerial radiometric and magnetic survey, Quincy National Topographic Map, Illinois/Missouri; New York-Illinois Project (Geodata International)
- Aerial radiometric and magnetic survey, St. Louis National Topographic Map, Illinois/Missouri; New York-Illinois Project (Geodata International)
- Airborne gamma-ray spectrometer and magnetometer survey; Peoria, Decatur, Belleville quadrangles (IL.); final report (High Life Helicopters)
- mineral prospecting *see* mineral exploration
- mineral resources *see also under* economic geology
- mineral resources--production methods: Analytical transmission electron microscopy in minerals processing (Fraser, H. L.)
- mineralogy fluorides: Fluorite and associated minerals from South Illinois; the Rex and Julie Bannister Collection (Francis, Carl A.)
- ring silicates: Bertrandite at Hicks Dome, Hardin County, Illinois (Baxter, James W.)
- minerals *see also* crystal structure
- minerals--carbonates aragonite: Aragonite; for a common mineral, it's amazingly scarce (Jones, Bob)
- occurrence: Fluorite and associated minerals from South Illinois; the Rex and Julie Bannister Collection (Francis, Carl A.)
- minerals--fluorides fluorite: Fluorite and associated minerals from South Illinois; the Rex and Julie Bannister Collection (Francis, Carl A.)

minerals--ring silicates

bertrandite: Bertrandite at Hicks Dome, Hardin County, Illinois (Baxter, James W.)

minerals--sulfates

occurrence: Fluorite and associated minerals from South Illinois; the Rex and Julie Bannister Collection (Francis, Carl A.)

minerals--sulfides

pyrite: Analytical transmission electron microscopy in minerals processing (Fraser, H. L.)
sphalerite: Geology and geochemistry of sphalerite in coal (Cobb, James Collins)

mining geology--applications

controls: The influence of certain geologic and geotechnical factors on coal mine floor stability; a case study (Speck, R. C.)

mining geology--evaluation

long-wall mining: Geologic investigation of roof and floor strata; longwall demonstration, Old Ben Mine No. 24; final technical report; Part 1 (Bauer, Robert A.)

mining geology--production control

coal: Effects of moisture on strata control in coal mines (Chugh, Yoginder P.)
-- Swelling behavior of Illinois coal shales (Huang, Scott Lin)
faults: Faults and their effect on coal mining in Illinois (Nelson, W. John)

miospores see under

palynomorphs

Mississippi

Valley--paleontology

Echinodermata:

Anomalocystitid mitrates (Stylophora-Echinodermata) from the Champlainian (Middle Ordovician) Guttenberg Formation of the Upper Mississippi Valley region (Kolata, Dennis R.)

Mississippi Valley--seismology

earthquakes: Preliminary results of microearthquake studies in the central Mississippi Valley (Herrmann, Robert B.)
-- Seismotectonics of the New Madrid region (Hamilton, Robert M.)

Mississippian see also under stratigraphy; *see also under* stratigraphy under Midwest organizations

museums--mineralogy

Harvard Mineralogical Museum: Fluorite and associated minerals from South Illinois; the Rex and Julie Bannister Collection (Francis, Carl A.)

natural gas see also under economic geology; *see also under* economic geology under automatic data processing; catalogs

nickel--geochemistry

soils: Limestone liner for landfill leachates containing beryllium, cadmium, iron, nickel, and zinc (Artiola, J.)

nonmetal deposits see also under economic geology

North America see also Great Lakes; Great Lakes region

North America--paleontology

Invertebrata: Early invertebrate terrestrial faunas (Rolfe, W. D. Ian)

Northern Hemisphere see also Europe; North America

organic materials--analysis

reflectance: Reflectance technique for predicting soil organic matter (Krishnan, P.)

organic

materials--geochemistry

pollution: Attenuation of polybrominated biphenyls and hexachlorobenzene by earth materials (Griffin, R. A.)

surface water: Gas chromatographic determination of organic compounds in river water (Siefker, Joseph R.)

organic

materials--hydrocarbons

chemical composition: Analyses of natural gas in Illinois (Meents, Wayne F.)

organic

materials--identification

coal balls: Coalification of tissues in a coal ball from the Illinois basin (Hatcher, P. G.)

organic materials--kerogen

age: Petrology and maturation of dispersed organic matter in the New Albany Shale Group of the Illinois Basin (Barrows, Mary H.)

oxygen--isotopes

O-18/O-16: A

stable-isotopic view of the Cambro-Ordovician aquifer system in northern Illinois (Grundl, Timothy J.)

paleobotany

gymnosperms: Permineralized *Alethopteris* from the Upper Pennsylvanian of Ohio and Illinois (Mickle, James E.)

Plantae: A record of life in rock (Korbus, Janet M.)

-- Paleocology of Middle Pennsylvanian age coal swamps in southern Illinois; Herrin Coal Member at Sahara Mine No. 6 (Phillips, Tom L.)

pteridophytes: The fossil lycopod cone,

Achlamydocarpon varius, from Carboniferous coal balls of the Illinois Basin (Leisman, G. A.)

paleoclimatology--interpretation

dust storms: Ancient dust storms in Illinois (Killey, Myrna M.)

paleoclimatology--Pleistocene

Sedimentology and palynology of middle Wisconsinan deposits in the Pecatonica River valley, Wisconsin and Illinois (Whittecarr, G. Richard)

paleoecology--Invertebrata

Paleozoic: Early invertebrate terrestrial faunas (Rolfe, W. D. Ian)

paleoecology--Plantae

Pennsylvanian: Early Pennsylvanian geology and paleobotany of the Rock Island County, Illinois, area; Part 1, Geology (Leary, Richard L.)

-- Paleocology of Middle Pennsylvanian age coal swamps in southern Illinois; Herrin Coal Member at Sahara Mine No. 6 (Phillips, Tom L.)

paleoecology--Pleistocene

Sedimentology and palynology of middle Wisconsinan deposits in the Pecatonica River valley, Wisconsin and Illinois (Whittecarr, G. Richard)

paleogeography--Mississippian

Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois (Wescott, William A.)

- The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois (Lineback, Jerry A.)
- paleogeography--Pennsylvanian**
 - Early Pennsylvanian geology and paleobotany of the Rock Island County, Illinois, area; Part 1, Geology (Leary, Richard L.)
- paleomagnetism--Mississippian**
 - Midwest: Paleomagnetism of the Late Ordovician Neda iron ore from Wisconsin, Iowa and Illinois (Kean, William F.)
- paleontology**
 - Agnatha:** New agnathous fishes from the Pennsylvanian of Illinois (Bardack, David)
 - Aves:** A prehistoric archaeological record of the Pomarine Jaeger, *Stercorarius Pomarinus* (Temminck), from central Illinois (Parmalee, Paul W.)
 - Echinodermata:** New *Manicrinidae* (Crinoidea, Inadunata, Dendrocrinina) from the Silurian of Illinois and Indiana (Frest, T. J.)
 - foraminifera:** Early Mississippian (Kinderhookian) smaller foraminifera from the McCraney Limestone of Missouri and Illinois (Conkin, James E.)
 - Mammalia:** Paleontological and geological results from two fossil proboscidean finds in northern Illinois (Springer, James Warren)
 - Pisces:** *Megapleuron zangerli*, a new dipnoan from the Pennsylvanian, Illinois (Schultze, Hans-Peter)
 - worms:** New fossil polychaete from Essex, Illinois (Thompson, Ida)
- paleotemperature** see geologic thermometry under fluid inclusions
- Paleozoic** see also under stratigraphy
- palynomorphs--miospores**
 - Pleistocene:** Sedimentology and palynology of middle Wisconsin deposits in the Pecatonica River valley, Wisconsin and Illinois (Whittecar, G. Richard)
- peat** see also under economic geology
- Pennsylvanian** see also under stratigraphy
- petroleum** see also under economic geology
- phosphorus--abundance**
 - fresh water:** Major problems of lake water quality in Illinois (Meyer, Michael)
- phosphorus--geochemistry**
 - soils:** Effects of past agricultural practices on the soil-phosphorus system and growth of planted pines (Gilmore, A. R.)
- physical geography** see geomorphology
- Pisces--Osteichthyes**
 - Pennsylvanian:** *Megapleuron zangerli*, a new dipnoan from the Pennsylvanian, Illinois (Schultze, Hans-Peter)
- Plantae** see also algal flora; gymnosperms; ichnofossils; palynomorphs; pteridophytes
- Plantae--floral studies**
 - Pennsylvanian:** A record of life in rock (Korbus, Janet M.)
 - Early Pennsylvanian geology and paleobotany of the Rock Island County, Illinois, area; Part 1, Geology (Leary, Richard L.)
- Pleistocene** see also under stratigraphy; see also under stratigraphy under Great Lakes region
- pollution** see also under environmental geology; see also under environmental geology under Great Lakes
- potassium--geochemistry**
 - soils:** Relation of nonexchangeable potassium and magnesium to development in some midwestern soils (Kovar, J. A.)
- pressure** see under processes under diagenesis
- pteridophytes--floral studies**
 - Pennsylvanian:** A record of life in rock (Korbus, Janet M.)
- pteridophytes--Lycopsida**
 - Carboniferous:** The fossil lycopod cone, *Achlamydocarpon varius*, from Carboniferous coal balls of the Illinois Basin (Leisman, G. A.)
- pteridophytes--occurrence**
 - Pennsylvanian:** Stratigraphic-geographic patterns of change in Pennsylvanian coal-swamp vegetation (Dimichele, William A.)
- pteridophytes--paleoecology**
 - Pennsylvanian:** Paleoecology of Middle Pennsylvanian age coal swamps in southern Illinois; Herrin Coal Member at Sahara Mine No. 6 (Phillips, Tom L.)
- pyrite** see under sulfides under minerals
- Quaternary** see also under geochronology
- radioactive dating** see absolute age
- radioactivity surveys** see under geophysical surveys
- radiocarbon dating** see absolute age
- radium--isotopes**
 - Ra-226:** 226Ra and 228Ra in ground water of the Cambrian-Ordovician aquifer system in northern Illinois (Gilkerson, Robert H.)
- reclamation** see also under environmental geology; soils
- remote sensing** see also under geophysical surveys
- remote sensing--applications**
 - soils:** Photometric detection of soil moisture using color and color infrared films (Kearney, Michael S.)
- reservoirs** see also under engineering geology; see also under engineering geology under Midwest
- reservoirs--storage**
 - water storage:** Optimization techniques for instream flow allocations (Sale, Michael John)
- ring silicates** see under minerals
- rock mechanics** see also soil mechanics
- rock mechanics--applications**
 - load tests:** Caissons socketed in sound mica schist; discussions and closure (Bushell, Ted D.)
- rock mechanics--case studies**
 - compressed air storage:** Evaluation of the St. Peter Sandstone and Joachim Dolomite for compressed air energy storage, with emphasis on thermal properties (Swingen, Regina Anne)
 - finite element analysis:** Finite element analysis of a longwall mine (Keith, H. D.)

rock mechanics--materials, properties

- sandstone*: Thermomechanical properties of Galesville Sandstone (Blacic, J. D.)
- shale*: Effects of moisture on strata control in coal mines (Chugh, Yoginder P.)
- Moisture absorption and swelling behavior of the Dykersburg Shale (Chugh, Y. P.)
- Swelling behavior of Illinois coal shales (Huang, Scott Lin)

sands see also under economic geology; see also under economic geology under Great Lakes

sandstone see also under clastic rocks under sedimentary rocks

sedimentary petrology

- diagenesis*: Experimental development of porosity in carbonate rocks under simulated deep burial conditions; I, Oomoldic porosity in Mississippian oolitic limestone (Rich, D. W.)
- sedimentary rocks*: Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop (Cluff, Robert M.)
- Petrology and maturation of dispersed organic matter in the New Albany Shale Group of the Illinois Basin (Barrows, Mary H.)
- sedimentary structures*: Sedimentary structures from the Carbondale Formation (Middle Pennsylvanian) of northern Illinois (Shabica, Charles W.)
- sedimentation*: Lead-210 analyses of sediment accumulation rates in five southern Illinois surface mine lakes (Brugam, Richard B.)
- Lower Mississippian Fort Payne Formation of southern Illinois (Tripp, Angela M.)
- Seasonal relations between streamflow and suspended-sediment discharge (Lazaro, T. R.)

sedimentary

- petrology--classification**
- mudstone*: Mudrock fabrics and their significance; discussion and reply (Nuhfer, Edward B.)

sedimentary rocks see also sedimentary structures; sedimentation; sediments
sedimentary rocks--carbonate rocks

- limestone*: The paleoenvironment of the Cedar Valley Limestone (Middle Devonian) in northwestern Illinois (Winkle, Candace J.)
- oolitic limestone*: Experimental development of porosity in carbonate rocks under simulated deep burial conditions; I, Oomoldic porosity in Mississippian oolitic limestone (Rich, D. W.)
- petrology*: Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop (Cluff, Robert M.)

sedimentary rocks--clastic rocks

- sandstone*: Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois (Wescott, William A.)

sedimentary rocks--environmental analysis

- nearshore environment*: Subsurface geology of the upper Tradewater and lower Carbondale groups in South-central Saline County, Illinois (Siegal, Sherman M.)

sedimentary rocks--lithostratigraphy

- lithofacies*: Regional setting of the Cambro-Ordovician in the Illinois Basin (Avila, John)

sedimentary rocks--organic residues

- coal*: Geology and geochemistry of sphalerite in coal (Cobb, James Collins)

sedimentary structures see also sedimentary rocks; sediments

sedimentary

structures--bedding plane irregularities

- sand waves*: The Kankakee Flood and the origin of the Parkland Sand, northeastern Illinois (Carnaghi, Gary Louis)

sedimentary

structures--interpretation

- classification*: Sedimentary structures from the

Carbondale Formation (Middle Pennsylvanian) of northern Illinois (Shabica, Charles W.)

sedimentary structures--secondary structures

- concretions*: Formation of calcium carbonate concretions in natric horizons of Illinois soils (Hassett, J. J.)

sedimentation--cyclic processes

- environmental analysis*: Early Pennsylvanian geology and paleobotany of the Rock Island County, Illinois, area; Part 1, Geology (Leary, Richard L.)

sedimentation--deposition

- isopach maps*: Paleozoic geology of the New Madrid area; annual progress report; fiscal year 1979 (Schwalb, H. R.)
- reservoirs*: Estimating reservoir sedimentation rates in the Midwest (Stall, John B.)

sedimentation--environment

- nearshore environment*: Subsurface geology of the upper Tradewater and lower Carbondale groups in South-central Saline County, Illinois (Siegal, Sherman M.)

- shelf environment*: Lower Mississippian Fort Payne Formation of southern Illinois (Tripp, Angela M.)

- Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop (Cluff, Robert M.)

sedimentation--processes

- glacial sedimentation*: Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois (Moore, David Warren)
- glaciofluvial sedimentation*: Late Wisconsinan proglacial sedimentation along the West Chicago Moraine in northeastern Illinois (Fraser, Gordon S.)
- lacustrine sedimentation*: Chemical characteristics of lake sediments (Barcelona, Michael J.)
- Major problems of lake water quality in Illinois

- (Meyer, Michael)
- nearshore sedimentation:**
Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois (Wescott, William A.)
- terrestrial sedimentation:**
The Kankakee Flood and the origin of the Parkland Sand, northeastern Illinois (Carnaghi, Gary Louis)
- sedimentation--sedimentation rates**
lacustrine sedimentation:
Lead-210 analyses of sediment accumulation rates in five southern Illinois surface mine lakes (Brugam, Richard B.)
- pollution:** Governmental responses to the problem of sedimentation (Gross, David L.)
- sedimentation--transport**
stream transport: A major water quality problem in Illinois; soil movement from the watershed and channel (Walker, Robert D.)
- Seasonal relations between streamflow and suspended-sediment discharge (Lazaro, T. R.)
 - Sediment transport and water quality during urban development in Illinois (Anonymous)
 - The extent of stream disequilibrium in northern Illinois (Goldman, Barbara Ellen)
- sediments see also sedimentary rocks; sedimentary structures; sedimentation**
- sediments--clastic sediments**
environmental analysis:
Sedimentology and palynology of middle Wisconsin deposits in the Pecatonica River valley, Wisconsin and Illinois (Whittecarr, G. Richard)
- outwash:** Late Wisconsinan proglacial sedimentation along the West Chicago Moraine in northeastern Illinois (Fraser, Gordon S.)
- sand:** The Kankakee Flood and the origin of the Parkland Sand, northeastern Illinois (Carnaghi, Gary Louis)
- till:** Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois (Moore, David Warren)
- The Dwight mineralogical zone of the Yorkville Till Member, northeastern Illinois (Killey, Myrna M.)
 - Till stratigraphy of the Vandalia-Effingham-Marshall region, East-central Illinois (Kettles, Inez M.)
- sediments--composition**
chemical composition:
Attenuation of polychlorinated biphenyls and hexachlorobenzene by earth materials (Griffin, R. A.)
- sediments--genesis**
analysis: Sediment analyses for urbanizing watersheds (Dyhouse, Gary R.)
- sediments--geochemistry**
composition: Chemical characteristics of lake sediments (Barcelona, Michael J.)
- seismology see also engineering geology**
- seismology**
earthquakes: An ancient rift complex and its relation to contemporary seismicity in the New Madrid seismic zone (Braille, L. W.)
- Seismicity map of the State of Illinois (Stover, C. W.)
 - Structural framework of the Mississippi Embayment of southern Illinois (Kolata, Dennis R.)
- maps:** Seismicity map of the State of Illinois (Stover, C. W.)
- seismology--earthquakes**
seismotectonics: An ancient rift complex and its relation to contemporary seismicity in the New Madrid seismic zone (Braille, L. W.)
- Seismotectonics of the New Madrid region (Hamilton, Robert M.)
- seismology--microearthquakes**
occurrence: Preliminary results of microearthquake studies in the central Mississippi Valley (Herrmann, Robert B.)
- seismology--seismicity**
maps: Seismicity map of the State of Illinois (Stover, C. W.)
- seismotectonics:** New Madrid seismotectonic study; activities during fiscal year 1979 (Buschbach, T. C.)
- selenium--geochemistry**
soils: Effect of pH on adsorption of arsenic and selenium from landfill leachate by clay minerals (Frost, R. R.)
- slope stability see also engineering geology; geomorphology**
- soil mechanics see also rock mechanics**
- soil mechanics--case studies**
mines: Mine subsidence in Illinois; facts for the homeowner considering insurance (DuMontelle, Paul B.)
- soil mechanics--materials, properties**
shear strength:
Preconsolidation pressure predicted using S_u/ρ ratio (Anderson, T. C.)
- soils**
analysis: The determination of nitrate and nitrite in soil extracts by ultraviolet spectrophotometry (Norman, R. J.)
- conservation:** Controlling sediment by watershed management techniques (Sundmacker, Harvey)
- genesis:** Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois (Krothe, Noel C.)
- geochemistry:** Chemical properties and mineralogical characteristics of selected dredged material (Combs, S. M.)
- Effect of pH on adsorption of arsenic and selenium from landfill leachate by clay minerals (Frost, R. R.)
 - Effects of past agricultural practices on the soil-phosphorus system and growth of planted pines (Gilmore, A. R.)
 - Fixation of zinc by clay minerals (Reddy, M. R.)
 - Fluorine distribution with depth in relation to profile development in Illinois (Dmueti, J. A. I.)
 - Formation of calcium carbonate concretions in natric horizons of

- Illinois soils (Hasset, J. J.)
- Regional distribution of fluorine in Illinois soils (Omueti, J. A. I.)
- maps: Soil survey of Champaign County, Illinois (Mont, H. R.)
- morphology: Soilscape analysis in terms of pedogeomorphic fabric; an explanatory study (Habermann, Gail M.)
- Subsurface horizon blending; an alternative strategy to B horizon replacement for the construction of post-mined soils (McSweeney, K.)
- organic materials: Reflectance technique for predicting soil organic matter (Krishnan, P.)
- pedogenesis: Use of stepwise discriminant analysis to assess soil genesis in a youthful sandy environment (Berg, R. C.)
- properties: Physical and chemical characteristics of pre-mine soils and post-mine soil mixtures in Illinois (Snarski, R. R.)
- Soil variability on surface-mined and undisturbed land in southern Illinois (Indorante, S. J.)
- reclamation: Surface mining and reclamation; initial changes in soil character (Indorante, Sam J.)
- surveys: Relation of nonexchangeable potassium and magnesium to development in some midwestern soils (Kovar, J. A.)
- utilization: Effect of gypsum, soil disturbance and tile spacing on the amelioration of Huey silt loam, a natric soil in Illinois (Sharma, A. K.)
- waste disposal: Limestone liner for landfill leachates containing beryllium, cadmium, iron, nickel, and zinc (Artiola, J.)
- soils--surveys**
- A major water quality problem in Illinois; soil movement from the watershed and channel (Walker, Robert D.)
 - Attenuation of polybrominated biphenyls and hexachlorobenzene by earth materials (Griffin, R. A.)
 - Chemical properties and mineralogical characteristics of selected dredged material (Combs, S. M.)
 - Controlling sediment by watershed management techniques (Sundmacker, Harvey)
 - Effect of gypsum, soil disturbance and tile spacing on the amelioration of Huey silt loam, a natric soil in Illinois (Sharma, A. K.)
 - Effect of pH on adsorption of arsenic and selenium from landfill leachate by clay minerals (Frost, R. R.)
 - Effects of past agricultural practices on the soil-phosphorus system and growth of planted pines (Gilmore, A. R.)
 - Fixation of zinc by clay minerals (Reddy, M. R.)
 - Fluorine distribution with depth in relation to profile development in Illinois (Omueti, J. A. I.)
 - Formation of calcium carbonate concretions in natric horizons of Illinois soils (Hasset, J. J.)
 - Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois (Krothe, Noel C.)
 - Limestone liner for landfill leachates containing beryllium, cadmium, iron, nickel, and zinc (Artiola, J.)
 - Physical and chemical characteristics of pre-mine soils and post-mine soil mixtures in Illinois (Snarski, R. R.)
 - Problems in reclaiming farmland in Illinois (Grandt, Alten F.)
 - Reflectance technique for predicting soil organic matter (Krishnan, P.)
 - Regional distribution of fluorine in Illinois soils (Omueti, J. A. I.)
 - Soil survey of Champaign County, Illinois (Mont, H. R.)
 - Soil variability on surface-mined and undisturbed land in southern Illinois (Indorante, S. J.)
 - Soilscape analysis in terms of pedogeomorphic fabric; an explanatory study (Habermann, Gail M.)
 - Subsurface horizon blending; an alternative strategy to B horizon replacement for the construction of post-mined soils (McSweeney, K.)
 - Surface mining and reclamation; initial changes in soil character (Indorante, Sam J.)
 - The determination of nitrate and nitrite in soil extracts by ultraviolet spectrophotometry (Norman, R. J.)
 - Use of stepwise discriminant analysis to assess soil genesis in a youthful sandy environment (Berg, R. C.)
- Midwest:** Relation of nonexchangeable potassium and magnesium to development in some midwestern soils (Kovar, J. A.)
- soils--water regimes**
- characterization: Photometric detection of soil moisture using color and color infrared films (Kearney, Michael S.)
- solution features see under geomorphology**
- spectrometry see spectroscopy**
- spectroscopy see also electron microscopy**
- spectroscopy--methods**
- ultraviolet spectroscopy: The determination of nitrate and nitrite in soil extracts by ultraviolet spectrophotometry (Norman, R. J.)
- X-ray spectroscopy: Analytical transmission electron microscopy in minerals processing (Fraser, H. L.)
- springs see also ground water stratigraphy**
- archaeology: A prehistoric archaeological record of the Pomarine Jaeger, *Stercorarius Pomarinus* (Temminck), from central Illinois (Parmalee, Paul W.)
- A suggested technique for measuring landscape changes through archaeology (Neitzel,

- Robert S.)
- Vertebrate remains from early European and historic Indian occupations at the Waterman site, Randolph County, Illinois (Parmalee, Paul W.)
- Devonian:**
- Devonian-Mississippian biostratigraphy of northeastern Missouri and western Illinois (Collinson, Charles)
 - Distribution of Devonian algae, *Foerstia*, in the Appalachian and Illinois basins (Kepferle, R. C.)
 - Megafossil zonation of the Lingle and St. Laurent limestones (Middle Devonian) of southern Illinois and southeastern Missouri (Fraunfelter, George H.)
 - The paleoenvironment of the Cedar Valley Limestone (Middle Devonian) in northwestern Illinois (Winkle, Candace J.)
- Mississippian:** Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois (Wescott, William A.)
- Devonian-Mississippian biostratigraphy of northeastern Missouri and western Illinois (Collinson, Charles)
 - Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop (Cluff, Robert M.)
 - The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois (Lineback, Jerry A.)
- Paleozoic:** Paleozoic geology of the New Madrid area; annual progress report; fiscal year 1979 (Schwalb, H. R.)
- Pennsylvanian:** Early Pennsylvanian geology and paleobotany of the Rock Island County, Illinois, area; Part 1, Geology (Leary, Richard L.)
- Stratigraphic-geographic patterns of change in Pennsylvanian coal-swamp vegetation (Dimichele, William A.)
 - Strippable coal resources of Illinois; Part 8, Central and southeastern counties (Nance, Roger B.)
 - Subsurface geology of the upper Tradewater and lower Carbondale groups in South-central Saline County, Illinois (Siegal, Sherman M.)
- Pleistocene:** Sedimentology and palynology of middle Wisconsin deposits in the Pecatonica River valley, Wisconsin and Illinois (Whittecarr, G. Richard)
- Stratigraphy of till and lake beds of late Wisconsin age in Iroquois and neighboring counties, Illinois (Moore, David Warren)
 - The Dwight mineralogical zone of the Yorkville Till Member, northeastern Illinois (Killey, Myrna M.)
 - The Kankakee Flood and the origin of the Parkland Sand, northeastern Illinois (Carnaghi, Gary Louis)
 - Till stratigraphy of the Vandalia-Effingham-Marshall region, East-central Illinois (Kettles, Inez M.)
- strontium--isotopes**
- Sr-87/Sr-86:* Gangue mineral /87_Sr//86_Sr ratios and the origin of mississippi valley-type mineralization (Kessen, K. M.)
- Strontium isotope compositions of mississippi valley-type deposits enclosed in Cambrian, Ordovician and Mississippian host carbonates (Woodruff, Michael S.)
- structural analysis see also folds**
- structural geology**
- faults:* Structural framework of the Mississippi Embayment of southern Illinois (Kolata, Dennis R.)
- The Cottage Grove fault system in southern Illinois (Nelson, W. John)
- maps:* Geologic structure of the base of the New Albany Shale Group in Illinois (Stevenson, D. L.)
- Structural features in Illinois; a compendium (Treworgy, Janis D.)
- tectonics:** A study of Indiana fault locations, displacements, attitudes and ages within a 200-mile radius of New Madrid, Missouri; annual progress; fiscal year 1979 (Sullivan, Dan M.)
- Structural features in Illinois; a compendium (Treworgy, Janis D.)
 - Structural framework of the Mississippi Embayment of southern Illinois (Kolata, Dennis R.)
 - Structural framework of the Mississippi Embayment of southern Illinois; annual progress report; fiscal year 1979 (Kolata, Dennis R.)
- sulfates see under minerals**
- sulfides see under minerals**
- sulfur--isotopes**
- S-34/S-32:* A stable-isotopic view of the Cambro-Ordovician aquifer system in northern Illinois (Grundl, Timothy J.)
- sulphur see sulfur**
- survey organizations see also museums**
- survey organizations--annual report**
- Illinois Institute of Natural Resources:* Illinois Institute of Natural Resources project list, January 1, 1981 (Illinois Institute of Natural Resources, Environmental Management Division)
- symposia--areal geology**
- Midwest:* Tri-State field conference (Anderson, Raymond R.)
- tectonics see also faults; folds; structural geology; see also under structural geology under catalogs**
- tektites see also meteorites**
- thermal analysis see also electron microscopy; spectroscopy**
- trace elements see under geochemistry**
- tracks and trails see ichnofossils**
- tritium see also deuterium; hydrogen**
- tunnels see also under engineering geology**
- ultraviolet spectroscopy see under methods under spectroscopy**
- underground installations see also under engineering geology**

underground installations/zinc

underground

installations--mines

geologic hazards: Effects
of moisture on strata
control in coal mines
(Chugh, Yoginder P.)

underground water *see* ground
water

United States *see also*

Midwest; Utah

uranium ores *see also under*
economic geology

Utah--economic geology

coal: Sohio in new U.S.
Steel coal deal
(Anonymous)

Vertebrata *see also* Agnatha;

Aves; ichnofossils;

Mammalia; Pisces

Vertebrata--faunal studies

Quaternary: Vertebrate
remains from early
European and historic
Indian occupations at the
Waterman site, Randolph
County, Illinois
(Parmalee, Paul W.)

waste disposal *see also under*
engineering geology;

environmental geology; soils

water *see also* ground water;

hydrogeology; hydrology

water resources *see also under*
economic geology

waterways *see also under*

engineering geology; *see also*

under engineering geology

under Midwest

well-logging--interpretation

boreholes: Geophysical well
logs for drill hole UPH-3,
Stephenson County,
Illinois (Daniels, J. J.)

water resources: Assessment
of a regional aquifer in
central Illinois (Burris,
Charles B.)

well-logging--methods

cores: Geotechnical
investigation for the Des
Plaines River system
tunnels and shafts
(Grimes, Walter W.)

Western Hemisphere *see also*

North America

Western U.S. *see also* Utah

worms--Polychaetia

New fossil polychaete from
Essex, Illinois (Thompson,
Ida)

X-ray analysis *see also*

spectroscopy

X-ray spectroscopy *see under*
methods *under* spectroscopy

zinc--geochemistry

soils: Limestone liner for
landfill leachates
containing beryllium,
cadmium, iron, nickel, and
zinc (Artiola, J.)

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

COUNTY INDEX

Adams County
Conkin, James E. Early Mississippian (Kinderhookian) smaller foraminifera from the McCraney Limestone of Missouri and Illinois
Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project
Neitzel, Robert S. A suggested technique for measuring landscape changes through archaeology

Bond County
Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois

Brown County
Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project

Bureau County
Foster, James B. Sheffield, Illinois
Kahle, R. Evaluation of trench subsidence and stabilization at Sheffield low-level radioactive waste disposal facility, Sheffield, Illinois; final report; October 15, 1980 - March 30, 1981

Carroll County
U. S. Geological Survey. Aeromagnetic map of northwestern Illinois

Cass County
Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map,

Illinois/Iowa/Missouri; New York-Illinois Project

Champaign County
Mont, H. R. Soil survey of Champaign County, Illinois

Christian County
Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois

Clark County
Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project
Kettles, Inez M. Till stratigraphy of the Vandalia-Effingham-Marshall region, East-central Illinois

Clinton County
Bhowmik, Nani G. Hydraulics of flow in the Kaskaskia River, Illinois

Coles County
Barcelona, Michael J. Chemical characteristics of lake sediments

Cook County
Grimes, Walter W. Geotechnical investigation for the Des Plaines River system tunnels and shafts
Sasman, Robert T. Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois

Crawford County
Treworgy, Colin G. Only minable coal is salable coal

Du Page County
Olimpio, J. C. Argonne National Laboratory site, Illinois
Sasman, Robert T. Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois

Edgar County
Jacobson, Russell J. Strippable coal resources of Illinois; Part 7, Vermilion and Edgar counties

Effingham County
Kettles, Inez M. Till stratigraphy of the Vandalia-Effingham-Marshall region, East-central Illinois

Fayette County
Kettles, Inez M. Till stratigraphy of the Vandalia-Effingham-Marshall region, East-central Illinois

Franklin County
Bauer, Robert A. Geologic investigation of roof and floor strata; longwall demonstration, Old Ben Mine No. 24; final technical report; Part 1
Nelson, W. John. The Cottage Grove fault system in southern Illinois

Fulton County
Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project
Lindorff, David E. Hydrogeology of surface coal mines in Illinois
Omueti, J. A. I. Fluorine distribution with depth in relation to profile development in Illinois

Fulton County/La Salle County

- Parmalee, Paul W. A. prehistoric archaeological record of the Pomarine Jaeger, *Stercorarius Pomarinus* (Temminck), from central Illinois
- Patterson, G. L. Sludge-storage basins recharge ground water in Illinois
- Wildanger, Edward George. Sinkhole-type subsidence over abandoned coal mines in St. David, Illinois

Grundy County

- Killey, Myrna M. The Dwight mineralogical zone of the Yorkville Till Member, northeastern Illinois
- Lindorff, David E. Hydrogeology of surface coal mines in Illinois

Hancock County

- Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project

Hardin County

- Baxter, James W. Bertrandite at Hicks Dome, Hardin County, Illinois
- Cluff, Robert M. Natural gas potential of the New Albany Shale Group (Devonian-Mississippian) in southeastern Illinois
- Francis, Carl A. Fluorite and associated minerals from South Illinois; the Rex and Julie Bannister Collection
- Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

Henderson County

- Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project

Henry County

- Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project

Hertford County

- Leith, C. J. Geophysical investigation of archaeological sites

Iroquois County

- Moore, David Warren. Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois

Jackson County

- Fraunfelder, George H. Megafossil zonation of the Lingle and St. Laurent limestones (Middle Devonian) of southern Illinois and southeastern Missouri
- Nelson, W. John. The Cottage Grove fault system in southern Illinois
- Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

Jefferson County

- Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project
- Indorante, S. J. Soil variability on surface-mined and undisturbed land in southern Illinois
- Indorante, Sam J. Surface mining and reclamation; initial changes in soil character
- Mickle, James E. Permineralized Alethopteris from the Upper Pennsylvanian of Ohio and Illinois

Jo Daviess County

- U. S. Geological Survey. Aeromagnetic map of northwestern Illinois

Johnson County

- Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

Kane County

- Cobb, James C. Application of sedimentology to development of sand and gravel resources in McHenry and Kane counties, northeastern Illinois

- Fraser, Gordon S. Late Wisconsinan proglacial sedimentation along the West Chicago Moraine in northeastern Illinois
- Sasman, Robert T. Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois

Kankakee County

- Bardack, David. New agnathous fishes from the Pennsylvanian of Illinois
- Carnaghi, Gary Louis. The Kankakee Flood and the origin of the Parkland Sand, northeastern Illinois
- Thompson, Ida. New fossil polychaete from Essex, Illinois

Kendall County

- Sasman, Robert T. Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois

Knox County

- Conkin, James E. Early Mississippian (Kinderhookian) smaller foraminifera from the McCraney Limestone of Missouri and Illinois
- Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project
- Grandt, Alten F. Problems in reclaiming farmland in Illinois
- McSweeney, K. Subsurface horizon blending; an alternative strategy to B horizon replacement for the construction of post-mined soils
- Snarski, R. R. Physical and chemical characteristics of pre-mine soils and post-mine soil mixtures in Illinois
- U. S. Geological Survey. Land use and land cover and associated maps for Vincennes, Indiana, Illinois, Kentucky

La Salle County

- Harrison, Wyman. Suitability of dredged material for reclamation of surface-mined land; the Ottawa, Illinois, Demonstration Project

ILLINOIS GEOLOGICAL
SURVEY LIBRARY

Lake County

Reinertsen, David L. A guide to the geology of the Zion-Lake Bluff area

Lawrence County

Siefker, Joseph R. Gas chromatographic determination of organic compounds in river water

Lee County

Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project
U. S. Geological Survey. Aeromagnetic map of northwestern Illinois

Livingston County

Killey, Myrna M. The Dwight mineralogical zone of the Yorkville Till Member, northeastern Illinois

Macon County

Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois

Macoupin County

Krothe, Noel C. Leaching of metals and trace elements from sulfide-bearing coal waste in southwestern Illinois

Madison County

Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois

Treworgy, Colin G. Only minable coal is salable coal

Mason County

Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project

Massac County

Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

McDonough County

Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project
Kearney, Michael S. Photometric detection of soil moisture using color and color infrared films

McHenry County

Cobb, James C. Application of sedimentology to development of sand and gravel resources in McHenry and Kane counties, northeastern Illinois
Fraser, Gordon S. Late Wisconsinan proglacial sedimentation along the West Chicago Moraine in northeastern Illinois

Mercer County

Dmueti, J. A. I. Fluorine distribution with depth in relation to profile development in Illinois

Monroe County

Reinertsen, David L. A guide to the geology of the Waterloo-Valmeyer area

Montgomery County

Habermann, Gail M. Soilscape analysis in terms of pedogeomorphic fabric; an explanatory study
Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois

Morgan County

Naymik, Thomas G. Characterization of a contaminant plume in ground water, Meredosia, Illinois

Moultrie County

Sale, Michael John. Optimization techniques for instream flow allocations

Ogle County

U. S. Geological Survey. Aeromagnetic map of northwestern Illinois

Peoria County

Anonymous. Urban geology of America; Peoria, Illinois

Perry County

Fraunfelter, George H. Megafossil zonation of the Lingle and St. Laurent limestones (Middle Devonian) of southern Illinois and southeastern Missouri
Gruner, Dennis B. Geochemistry of drainage from a coal refuse pile, Pyramid Mine, Perry County, Illinois
McSweeney, K. Subsurface horizon blending; an alternative strategy to B horizon replacement for the construction of post-mined soils
Snarski, R. R. Physical and chemical characteristics of pre-mine soils and post-mine soil mixtures in Illinois

Piatt County

Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois

Pike County

Frost, R. R. Effect of pH on adsorption of arsenic and selenium from landfill leachate by clay minerals
Lazaro, T. R. Seasonal relations between streamflow and suspended-sediment discharge

Pope County

Klasner, J. S. Geologic map of the Lusk Creek Roadless Area, Pope County, Illinois
Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

Pulaski County

Kolata, Dennis R. Structural framework of the Mississippi Embayment of southern Illinois; annual progress report; fiscal year 1979

Randolph County

Indorante, S. J. Soil variability on surface-mined and undisturbed land in southern Illinois
Indorante, Sam J. Surface mining and reclamation; initial changes in soil character
Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank

Randolph County/Winnebago County

in Illinois

Parmalee, Paul W. Vertebrate remains from early European and historic Indian occupations at the Waterman site, Randolph County, Illinois

Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

Richland County

Mickle, James E. Permineralized Alethopteris from the Upper Pennsylvanian of Ohio and Illinois

Rock Island County

Leary, Richard L. Early Pennsylvanian geology and paleobotany of the Rock Island County, Illinois, area; Part 1, Geology

Saint Clair County

Lineback, Jerry A. The eastern margin of the Burlington-Keokuk (Valmeyeran) carbonate bank in Illinois

Saline County

Lindorff, David E. Hydrogeology of surface coal mines in Illinois

Nelson, W. John. The Cottage Grove fault system in southern Illinois

Phillips, Tom L. Paleoecology of Middle Pennsylvanian age coal swamps in southern Illinois; Herrin Coal Member at Sahara Mine No. 6

Schuller, Rudolph M. Evaluation of laboratory-produced leachates used for environmental assessment of coal refuse

Siegal, Sherman M. Subsurface geology of the upper Tradewater and lower Carbondale groups in South-central Saline County, Illinois

Schuyler County

Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project

Scotland County

Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map,

Illinois/Iowa/Missouri; New York-Illinois Project

Habermann, Gail M. Soilscape analysis in terms of pedogeomorphic fabric; an explanatory study

Shelby County

Showmik, Nani G. Hydraulics of flow in the Kaskaskia River, Illinois

Conkin, James E. Early Mississippian (Kinderhookian) smaller foraminifera from the McCraney Limestone of Missouri and Illinois

Dmueti, J. A. I. Fluorine distribution with depth in relation to profile development in Illinois

Sale, Michael John. Optimization techniques for instream flow allocations

Stephenson County

Daniels, J. J. Geophysical well logs for drill hole UPH-3, Stephenson County, Illinois

U. S. Geological Survey. Aeromagnetic map of northwestern Illinois
Whittecarr, G. Richard. Sedimentology and palynology of middle Wisconsinan deposits in the Pecatonica River valley, Wisconsin and Illinois

Union County

Fraunfelter, George H. Megafossil zonation of the Lingle and St. Laurent limestones (Middle Devonian) of southern Illinois and southeastern Missouri

Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

Vermilion County

Jacobson, Russell J. Strippable coal resources of Illinois; Part 7, Vermilion and Edgar counties

Kempton, John P. Ground-water resources of northern Vermilion County, Illinois
Lineback, Jerry A. The eastern margin of the Burlington-Keokuk

(Valmeyeran) carbonate bank in Illinois

Moore, David Warren.

Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois

Reinertsen, David L. A guide to the geology of the Danville area

Warren County

Blacic, J. D. Thermomechanical properties of Galesville Sandstone

Geodata International. Aerial radiometric and magnetic survey, Burlington National Topographic Map, Illinois/Iowa/Missouri; New York-Illinois Project

Wayne County

Cluff, Robert M. Natural gas potential of the New Albany Shale Group (Devonian-Mississippian) in southeastern Illinois

White County

Cluff, Robert M. Natural gas potential of the New Albany Shale Group (Devonian-Mississippian) in southeastern Illinois

Whiteside County

U. S. Geological Survey. Aeromagnetic map of northwestern Illinois

Will County

Bardack, David. New agnathous fishes from the Pennsylvanian of Illinois
Hopkins, Lewis D. Analyzing floodplain policies using an interdependent land use allocation model

Sasman, Robert T. Verification of the potential yield and chemical quality of the shallow dolomite aquifer in DuPage County, Illinois

Schultze, Hans-Peter. Megapleuron zangerli, a new dipnoan from the Pennsylvanian, Illinois

Williamson County

Nelson, W. John. The Cottage Grove fault system in southern Illinois

Winnebago County

U. S. Geological Survey. Aeromagnetic map of northwestern Illinois

BIBLIOGRAPHY AND INDEX OF ILLINOIS GEOLOGY

ROCK-UNIT INDEX

Aux Vases Sandstone
Cluff, Robert M. Middle
Mississippian carbonates of
the Illinois Basin; a
seminar and core workshop

Backbone Limestone
Goodwin, Jonathan H.
High-calcium,
high-reflectance limestone
resources of Illinois

Banner Formation
Burris, Charles B. Assessment
of a regional aquifer in
central Illinois
Kempston, John P. Ground-water
resources of northern
Vermilion County, Illinois

Belle River Coal
Nance, Roger B. Strippable
coal resources of Illinois;
Part 8, Central and
southeastern counties

Bond Formation
Nance, Roger B. Strippable
coal resources of Illinois;
Part 8, Central and
southeastern counties
Reinertsen, David L. A guide
to the geology of the
Danville area

Borden Siltstone
Lineback, Jerry A. The eastern
margin of the
Burlington-Keokuk
(Valmeyeran) carbonate bank
in Illinois

Bristol Hill Coal
Nance, Roger B. Strippable
coal resources of Illinois;
Part 8, Central and
southeastern counties

Burlington Limestone
Goodwin, Jonathan H.
High-calcium,
high-reflectance limestone
resources of Illinois
Lane, H. Richard. The
Burlington Shelf

(Mississippian,
North-central United States)
Lineback, Jerry A. The eastern
margin of the
Burlington-Keokuk
(Valmeyeran) carbonate bank
in Illinois

Cahokia Alluvium
Burris, Charles B. Assessment
of a regional aquifer in
central Illinois

Calhoun Coal
Mickle, James E.
Permineralized Alethopteris
from the Upper Pennsylvanian
of Ohio and Illinois

Carbondale Formation
Bardack, David. New agnathous
fishes from the
Pennsylvanian of Illinois
Jacobson, Russell J.
Strippable coal resources of
Illinois; Part 7, Vermilion
and Edgar counties
Krothe, Noel C. Leaching of
metals and trace elements
from sulfide-bearing coal
waste in southwestern
Illinois

Nance, Roger B. Strippable
coal resources of Illinois;
Part 8, Central and
southeastern counties
Phillips, Tom L. Paleogeology
of Middle Pennsylvanian age
coal swamps in southern
Illinois; Herrin Coal Member
at Sahara Mine No. 6
Reinertsen, David L. A guide
to the geology of the
Danville area
Schultze, Hans-Peter.
Megapleuron zangerli, a new
dipnoan from the
Pennsylvanian, Illinois
Shabica, Charles W.
Sedimentary structures from
the Carbondale Formation
(Middle Pennsylvanian) of
northern Illinois
Siegal, Sherman M. Subsurface
geology of the upper

Tradewater and lower
Carbondale groups in
South-central Saline County,
Illinois

Carmi Clay Member
Moore, David Warren.
Stratigraphy of till and
lake beds of late
Wisconsinan age in Iroquois
and neighboring counties,
Illinois

Cedar Valley Formation
Winkle, Candace J. The
paleoenvironment of the
Cedar Valley Limestone
(Middle Devonian) in
northwestern Illinois

Clayton Formation
Kolata, Dennis R. Structural
framework of the Mississippi
Embayment of southern
Illinois; annual progress
report; fiscal year 1979

Colchester (No. 2) Coal Member
Lindorff, David E.
Hydrogeology of surface coal
mines in Illinois

Conemaugh Group
Mickle, James E.
Permineralized Alethopteris
from the Upper Pennsylvanian
of Ohio and Illinois

Cypress Formation
Sullivan, Dan M. A study of
Indiana fault locations,
displacements, attitudes and
ages within a 200-mile
radius of New Madrid,
Missouri; annual progress;
fiscal year 1979

Danville Coal
Jacobson, Russell J.
Strippable coal resources of
Illinois; Part 7, Vermilion
and Edgar counties
Nelson, W. John. Faults and
their effect on coal mining
in Illinois

Dunleith Limestone/McLeansboro Group

Dunleith Limestone

Goodwin, Jonathan H.
High-calcium,
high-reflectance limestone
resources of Illinois

Duquesne Coal

Mickle, James E.
Permineralized Alethopteris
from the Upper Pennsylvanian
of Ohio and Illinois

Dykersburg Shale

Chugh, Y. P. Moisture
absorption and swelling
behavior of the Dykersburg
Shale

Equality Formation

Moore, David Warren.
Stratigraphy of till and
lake beds of late
Wisconsinan age in Iroquois
and neighboring counties,
Illinois

Fern Glen Limestone

Lane, H. Richard. The
Burlington Shelf
(Mississippian,
North-central United States)

Fort Payne Formation

Tripp, Angela M. Lower
Mississippian Fort Payne
Formation of southern
Illinois

Galesville Sandstone

Blacic, J. D. Thermomechanical
properties of Galesville
Sandstone

Glasford Formation

Burris, Charles B. Assessment
of a regional aquifer in
central Illinois
Kempton, John P. Ground-water
resources of northern
Vermilion County, Illinois

Glen Dean Limestone

Goodwin, Jonathan H.
High-calcium,
high-reflectance limestone
resources of Illinois

Grand Tower Limestone

Goodwin, Jonathan H.
High-calcium,
high-reflectance limestone
resources of Illinois

Guttenberg Formation

Kolata, Dennis R.
Anomalocystitid mitrates
(Stylophora-Echinodermata)
from the Champlainian
(Middle Ordovician)
Guttenberg Formation of the

Upper Mississippi Valley
region

Haney Limestone

Goodwin, Jonathan H.
High-calcium,
high-reflectance limestone
resources of Illinois

Harrisburg No. 5 Coal

Nelson, W. John. Faults and
their effect on coal mining
in Illinois

Herrin Coal

Fraser, H. L. Analytical
transmission electron
microscopy in minerals
processing
Jacobson, Russell J.
Strippable coal resources of
Illinois; Part 7, Vermilion
and Edgar counties
Lindorff, David E.
Hydrogeology of surface coal
mines in Illinois
Nelson, W. John. Faults and
their effect on coal mining
in Illinois
Phillips, Tom L. Paleoeology
of Middle Pennsylvanian age
coal swamps in southern
Illinois; Herrin Coal Member
at Sahara Mine No. 6

Joachim Dolomite

Swingen, Regina Anne.
Evaluation of the St. Peter
Sandstone and Joachim
Dolomite for compressed air
energy storage, with
emphasis on thermal
properties

Joliet Formation

Frest, T. J. New Manicrinidae
(Crinoidea, Inadunata,
Dendrocrinina) from the
Silurian of Illinois and
Indiana

Kankakee Formation

Schultze, Hans-Peter.
Megapleuron zangerli, a new
dipnoan from the
Pennsylvanian, Illinois

Keokuk Limestone

Lineback, Jerry A. The eastern
margin of the
Burlington-Keokuk
(Valmeyeran) carbonate bank
in Illinois

Kewanee Group

Jacobson, Russell J.
Strippable coal resources of
Illinois; Part 7, Vermilion
and Edgar counties
Leary, Richard L. Early

Pennsylvanian geology and
paleobotany of the Rock
Island County, Illinois,
area; Part 1, Geology
Phillips, Tom L. Paleoeology
of Middle Pennsylvanian age
coal swamps in southern
Illinois; Herrin Coal Member
at Sahara Mine No. 6

Lingle Limestone

Fraunfelter, George H.
Megafossil zonation of the
Lingle and St. Laurent
limestones (Middle Devonian)
of southern Illinois and
southeastern Missouri

Loudon Coal

Nance, Roger B. Strippable
coal resources of Illinois;
Part 8, Central and
southeastern counties

Mahomet Sand Member

Kempton, John P. Ground-water
resources of northern
Vermilion County, Illinois

Martintown Unit

Whittecar, G. Richard.
Sedimentology and palynology
of middle Wisconsinan
deposits in the Pecatonica
River valley, Wisconsin and
Illinois

Mattoon Formation

Nance, Roger B. Strippable
coal resources of Illinois;
Part 8, Central and
southeastern counties

McCormick Group

Jacobson, Russell J.
Strippable coal resources of
Illinois; Part 7, Vermilion
and Edgar counties
Leary, Richard L. Early
Pennsylvanian geology and
paleobotany of the Rock
Island County, Illinois,
area; Part 1, Geology

McCraney Limestone

Conkin, James E. Early
Mississippian
(Kinderhookian) smaller
foraminifera from the
McCraney Limestone of
Missouri and Illinois

McLeansboro Group

Jacobson, Russell J.
Strippable coal resources of
Illinois; Part 7, Vermilion
and Edgar counties
Mickle, James E.
Permineralized Alethopteris
from the Upper Pennsylvanian

of Ohio and Illinois

Meppen Limestone

Lane, H. Richard. The Burlington Shelf (Mississippian, North-central United States)

Modesto Formation

Nance, Roger B. Strippable coal resources of Illinois; Part 8, Central and southeastern counties
Reinertsen, David L. A guide to the geology of the Danville area

Neda Iron Formation

Kean, William F. Paleomagnetism of the Late Ordovician Neda iron ore from Wisconsin, Iowa and Illinois

New Albany Shale Group

Barrows, Mary H. Petrology and maturation of dispersed organic matter in the New Albany Shale Group of the Illinois Basin
Cluff, Robert M. Natural gas potential of the New Albany Shale Group (Devonian-Mississippian) in southeastern Illinois
Nunfer, Edward B. Mudrock fabrics and their significance
Stevenson, D. L. Geologic structure of the base of the New Albany Shale Group in Illinois

Northview Shale

Lane, H. Richard. The Burlington Shelf (Mississippian, North-central United States)

Oconee Coal

Nance, Roger B. Strippable coal resources of Illinois; Part 8, Central and southeastern counties

Ogallala Formation

Eisel, Leo M. The national ground water picture

Parkland Sand

Carnaghi, Gary Louis. The Kankakee Flood and the origin of the Parkland Sand, northeastern Illinois

Peoria Loess

Kearney, Michael S. Photometric detection of soil moisture using color and color infrared films

Neitzel, Robert S. A suggested technique for measuring landscape changes through archaeology

Petersburg Formation

Sullivan, Dan M. A study of Indiana fault locations, displacements, attitudes and ages within a 200-mile radius of New Madrid, Missouri; annual progress; fiscal year 1979

Pierson Limestone

Lane, H. Richard. The Burlington Shelf (Mississippian, North-central United States)

Racine Dolomite

Frest, T. J. New Manicrinidae (Crinoidea, Inadunata, Dendrocrinina) from the Silurian of Illinois and Indiana

Reeds Spring Limestone

Lane, H. Richard. The Burlington Shelf (Mississippian, North-central United States)

Saint Clair Limestone

Goodwin, Jonathan H. High-calcium, high-reflectance limestone resources of Illinois

Saint Joe Formation

Lane, H. Richard. The Burlington Shelf (Mississippian, North-central United States)

Saint Laurent Formation

Fraunfelter, George H. Megafossil zonation of the Lingule and St. Laurent limestones (Middle Devonian) of southern Illinois and southeastern Missouri

Saint Louis Limestone

Cluff, Robert M. Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop
Goodwin, Jonathan H. High-calcium, high-reflectance limestone resources of Illinois

Saint Peter Sandstone

Lindorff, David E. Hydrogeology of surface coal mines in Illinois
Swingen, Regina Anne. Evaluation of the St. Peter Sandstone and Joachim

Dolomite for compressed air energy storage, with emphasis on thermal properties

Sainte Genevieve Limestone

Cluff, Robert M. Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop
Goodwin, Jonathan H. High-calcium, high-reflectance limestone resources of Illinois

Salem Limestone

Goodwin, Jonathan H. High-calcium, high-reflectance limestone resources of Illinois

Snider Till Member

Moore, David Warren. Stratigraphy of till and lake beds of late Wisconsinan age in Iroquois and neighboring counties, Illinois

Spar Mountain Sandstone

Cluff, Robert M. Middle Mississippian carbonates of the Illinois Basin; a seminar and core workshop

Spoon Formation

Siegal, Sherman M. Subsurface geology of the upper Tradewater and lower Carbondale groups in South-central Saline County, Illinois

Springfield Coal Member

Sullivan, Dan M. A study of Indiana fault locations, displacements, attitudes and ages within a 200-mile radius of New Madrid, Missouri; annual progress; fiscal year 1979

Tar Springs Sandstone

Wescott, William A. Depositional setting and history of the Tar Springs Sandstone (Upper Mississippian), southern Illinois

Tradewater Group

Siegal, Sherman M. Subsurface geology of the upper Tradewater and lower Carbondale groups in South-central Saline County, Illinois

Ullin Limestone/Yorkville Till Member

Ullin Limestone

Goodwin, Jonathan H.

High-calcium,
high-reflectance limestone
resources of Illinois

Waldron Shale

Frest, T. J. New Manicrinidae

(Crinoidea, Inadunata,
Dendrocrinina) from the
Silurian of Illinois and
Indiana

Wapsipinicon Limestone

Goodwin, Jonathan H.

High-calcium,
high-reflectance limestone
resources of Illinois

Wedron Formation

Burris, Charles B. Assessment
of a regional aquifer in
central Illinois

Moore, David Warren.

Stratigraphy of till and
lake beds of late
Wisconsinan age in Iroquois
and neighboring counties,
Illinois

Yorkville Till Member

Killey, Myrna M. The Dwight
mineralogical zone of the
Yorkville Till Member,
northeastern Illinois

Moore, David Warren.

Stratigraphy of till and
lake beds of late
Wisconsinan age in Iroquois
and neighboring counties,
Illinois

